

NORTH CAROLINA SCIENCE AND TECHNOLOGY RESEARCH CENTER

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LITERATURE SEARCHES FOR THESES BY COMPUTER
SECOND YEAR OF THE PROGRAM

Frederick O. Smetana
and
S. Rebecca Walker

North Carolina Science and Technology Research Center
Research Triangle Park, North Carolina

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(Final Report under Contract NSR 34-007-006 - Experimental Projects)

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LITERATURE SEARCHES FOR THESES BY COMPUTER

SECOND YEAR OF THE PROGRAM

I. INTRODUCTION

The preparation and presentation of an acceptable thesis is usually a requirement for successful completion of graduate programs in most fields. What constitutes an acceptable thesis, of course, varies with the level of program (M.S. or Ph.D.), the field, and the major professor. Many fields, however, would accept the view that the object of a master's thesis is to demonstrate competence in the conduct of a significant research project; the acceptable doctoral thesis or dissertation is evidence of the ability to conduct original research which makes an important contribution to the knowledge in that field.

High quality research, original or not, requires cognizance of the efforts of others in the field, both past and present, and of those in related fields. For this reason, comprehensive literature searches have always been an important part of effective research programs. In some cases, correlation and analysis of the material found in a literature search is the entire investigation.

It should be recognized that a professor's view of what constitutes an acceptable literature search is strongly influenced by his personal research standards, his desire to see the student finish his work in a reasonable time, and the information resources immediately available to the student. A professor conditioned by acquaintance with narrow information resources seldom requires his student to extend his perusal beyond these bounds. The difficulties encountered by a student in learning of the availability of pertinent documents, particularly on the masters' level, frequently leads to his overlooking important work, to repeating the investigation, or to failure to contribute as effectively as he might.

It is all too evident that because of the desire to complete a piece of work within a reasonable period of time, work in an allied area with which the professor is not likely to be familiar is not pursued. This lack of depth in literature searches is even more noticeable in many industrial environments where the poor research habits picked up in school are often permitted to mature.

With this situation in mind, a comprehensive program has been underway for the last two years to learn to what extent student research could be improved by making available to the student, easily and rapidly, pertinent information he would not ordinarily acquire. This paper is a report on the second year of that program.

II. ORGANIZATION OF THE PROGRAM

The North Carolina Science and Technology Research Center is an agency of the State Government of North Carolina. It is charged with the task of disseminating technical information to the industrial and academic communities in the state. Under a contract (NSR-34-007-006) with the National Aeronautics and Space Administration, STRC operates a Regional Dissemination Center utilizing as its principal resource the large computer-searchable file accumulated by NASA for its own operations and those of its contractors since 1962. This file now includes more than 360,000 items,* most of which are at least remotely related to some phase of NASA's multidisciplinary aerospace research. By law, NASA is required to make available the results of its research to the commercial economy. The sharing of this research tool with the industrial and academic communities is an ideal way to carry out this mandate.

* The contents of International Aerospace Abstracts and Scientific and Technical Aerospace Reports since 1962.

Two years ago, STRC conceived the idea that graduate students form a group responsive to innovation and soon to become influential in research, instruction, and administration. If this group could be shown the advantages of computerized literature searches, perhaps the impact on research and education could be significant. NASA agreed to subsidize the program to fit it within the budget capabilities of the average graduate student. The service that was provided industrial subscribers at \$75 was offered to graduate students at \$5 in 1967-1968 and at \$10 and \$15* in 1968-1969. The program was limited to 155 students at twelve universities in 1967-1968 and 179 students at seventeen universities in 1968-1969. Figure 1 depicts the locations of the seventeen universities involved.

A. Marketing Effort

Since this program was to be, in essence, a marketing tool for computerized information retrieval in general, it was felt that additional contacts should be made to determine which Southeastern universities not previously served might use the program effectively. This study included a review of the U. S. Higher Education Directory to determine the size and major curriculum features of colleges and universities in the Southeast. Special attention was given to North Carolina colleges because of their close geographical location to STRC and STRC's ties with the State Government of North Carolina. Graduate degrees in the science fields, it was found, are offered at only four North Carolina universities, three of which make up what is known as the Research Triangle Universities--The University of North Carolina at Chapel Hill, Duke University, and North Carolina State University. These universities had participated in the first year of the program, but the fourth, East Carolina University, was added in 1968-69.

* \$10 to North Carolina students and \$15 to students at other Southeastern universities.

One other university was included---The University of North Carolina at Charlotte---even though it has no graduate degree program at all. This move was made in an attempt to discover how or if STRC could aid the research efforts of a relatively new university. In addition, four out-of-state universities joined the list of participants in 1968-69.

The president of each university was contacted by letter informing him of the objectives of the program and the services STRC might render and inviting him to participate. In each case, a dean or some other faculty member was appointed by the president to coordinate a visit by STRC staff members to the campus. Faculty contacts that had been made in the previous year considerably aided the marketing effort by working with the presidents' appointees. The geographically more remote universities were asked to select 10 or 15 students to participate in the program. It is interesting to note that the eleven out-of-state universities were more cooperative than those in North Carolina in actually publicizing the service and in organizing a group to meet with STRC representatives. They seemed eager at least to learn of the service and were successful in scheduling general meetings for large numbers of students and faculty to attend followed by private conferences for students with STRC engineers. In fact, in several instances, the number of students desiring searches quite exceeded the 10-15 allotted. In addition, all the out-of-state universities, either through the Graduate School or through individual departments, bore the search costs for the selected students.

The North Carolina universities, on the other hand, were reluctant to commit themselves. Not only were they unwilling to support the program financially, but also they refused to organize student participation. The Assistant Director for Operations at STRC, a professor at North Carolina State University, approached the Dean of the Graduate School at this institution which, in 1967-68 had yielded by far the largest number of student participants in the program. He proposed that the Graduate School

appropriate \$400 to be used to cover the search costs for 40 students; however, the Dean, after consulting other graduate administrators, refused this proposal on the grounds that the students could well afford \$10 for a literature search. This point may have been well taken, but a subsidy of this sort would have represented a firm acknowledgement of the University's willingness to help upgrade student research.

The presidents of the North Carolina universities, for the most part, endorsed the program by appointing a campus coordinator. Only one president replied that he felt there would not be sufficient interest to pursue the program. The campus coordinators seemed enthusiastic but failed to generate a great deal of interest among a large group of students; when meetings were scheduled, only a handful of students were present. It is true that tight organization was not stressed as much in the local universities as it was in the out-of-state schools because of the ease with which individual contacts could be made, and local universities were not limited in the number of student participants; however, the initial approach was the same at all universities.

Two local universities did not inform students of the scheduled meetings at all but preferred to have only faculty representatives of various departments hear an explanation of the program first and then decide how best to proceed. The University of North Carolina at Charlotte was one of these, and the faculty members showed little interest. It was felt that perhaps they are typical of professors who have become refugees from the "publish or perish syndrome" at a major university and have relocated at emerging or "instant" universities. They are virtually uninterested in research.

Maybe the reason for the difference between local and out-of-state universities in their initial reception of the program lies in the fact that out-of-state administrators saw an STRC visit as a "one shot deal,"

whereas local officials knew they could easily reach the Center quickly and conveniently at any time they chose. The Triangle Universities, whether justifiably or not, also seem to regard themselves as already providing the highest quality education available in the Southeast; they therefore feel that they need innovative measures less than do schools without their degree of development.

B. The Market

Not only was the number of universities expanded in the second year of the program's operation but also an effort was made to reach students in departments that had not previously been served. Many students working in areas peripheral to the NASA technology were anxious to see how computerized information retrieval works whether there was any material directly related to their research efforts or not. This willingness on the part of students gave STRC personnel an excellent opportunity to explore areas of the NASA bank that had not been widely searched and indicated how service to the industrial community might be expanded.

Table I presents the distribution of student searches by major field. Of special interest are fields which were represented in the second year of the project but not in the first, i.e., Industrial Engineering, Home Economics, Food Science, Design, Economics, Law, Information Science, etc.

TABLE I

DISTRIBUTION OF SEARCHES BY MAJOR FIELD

	Students 68-69	% 68-69	Students 67-68	% Both Years
Mechanical Engineering	20	11.0	40	18.0
Chemical Engineering	21	12.0	7	9.0
Electrical Engineering	10	6.0	19	9.0
Civil Engineering	14	8.0	5	6.0
Environmental Systems Engineering	2	1.0	1	0.9
Aerospace Engineering	18	10.0	15	10.0
Industrial Engineering	6	3.0	-	2.0
Agricultural & Biological Engineering	7	4.0	11	5.0
Nuclear Engineering	1	0.6	4	1.5
Engineering Sciences and Mechanics	5	3.0	10	5.0
Engineering (unclassified)	5	3.0	-	1.5
Metals and Ceramics	10	6.0	3	4.0
Physics	16	9.0	2	5.0
Math	5	3.0	-	1.5
Textiles	2	1.0	-	0.6
Chemistry	5	3.0	7	4.0
Home Economics	8	5.0	-	2.0
Planning	1	0.6	1	0.6
Psychology	3	2.0	1	1.0
Biology	7	4.0	10	5.0
Food Science	4	2.5	-	1.0
Design	4	2.5	-	1.0
Physiology & Pharmacology	2	1.0	6	2.0
Economics	1	0.6	-	0.3
Law	1	0.6	-	0.3
Information Science	1	0.6	-	0.3
Poultry Science	-	-	1	0.3
Soil Science	-	-	1	0.3
Child Development	-	-	1	0.3
Experimental Statistics	-	-	1	0.3
Forestry	-	-	9	3.0
Statistics	-	-	1	0.3
Total	179		156*	

* One bibliography was prepared for two students in two different departments.

Another significant fact shown in Table I is the increase in the number of physics and math participants. During the first year of the project, these students were conspicuous by their absence, so a concentrated attempt was made this year to bring them into the fold. These students have been considered an important market to reach because

- 1) There are more physics and math students (taking all schools together) than engineering students. Universities which may have only small or no engineering schools always include physics and math as major features of the science curriculum.
- 2) There is a great deal of information in the NASA file which is directly pertinent to these fields, especially physics.

Discussions with physics professors during the 1967-68 program revealed that many physicists feel they are aware of all the research going on in their interest area or that they have helped to generate the information that is available and thus do not need a service such as STRC provides. This attitude seems to prevail among physicists working in areas that have traditionally been supported by both public and private funds. Conversely, physicists working in areas that are relatively new or those with a small amount of support are more willing to glean information from allied fields and are constantly looking for additional sources of information. The latter group was represented in the 1968-69 Graduate Search Program.

One tends to think that the majority of physics research (monetarily, at least) is concentrated along the lines of high energy particles and understanding of nuclear structure. The searches run for students indicate interest as well in radio astronomy, chemical physics, and plasma properties.

The mathematicians in the universities contacted were involved primarily in the study of theoretical math rather than the applied math with which the NASA file is replete. It is reasonable to expect, then, that the pursuit of academic mathematicians as a market for STRC services will not yield as high returns as might have been hoped.

It is interesting to compare the research areas indicated by departments served in Table I with the categories of documents actually sent to the students in these departments as shown in Table II. Of noteworthy consideration is the fact that the categories from which most documents were ordered in 1968-69 were in physics, a discipline in which, as discussed above, clients have been most difficult to secure.

TABLE II

SUMMARY OF DOCUMENTS ORDERED BY STAR CATEGORY FOR 334 SEARCHES

<u>Category Title</u>	<u>Category Number</u>	<u>No. Ordered 1968--1969</u>		<u>% of Total 1968--1969</u>	
Aerodynamics	01	5	3	1.1	0.7
Aircraft	02	0	3	0.0	0.7
Auxiliary Systems	03	6	4	1.4	0.9
Biosciences	04	53	25	12.2	6.0
Biotechnology	05	14	15	3.2	3.6
Chemistry	06	33	18	7.6	4.3
Communications	07	12	25	2.8	6.0
Computers	08	8	20	1.8	4.8
Electronic Equipment	09	1	5	0.2	1.4
Electronics	10	5	5	1.1	1.4
Facilities, Res. & Support	11	6	4	1.4	0.9
Fluid Mechanics	12	18	29	4.1	7.0
Geophysics	13	22	14	5.0	3.4
Instrumentation & Photography	14	20	21	4.6	5.1
Machine Elements & Processes	15	14	2	3.2	0.4
Masers	16	13	7	3.0	1.7
Materials, Metallic	17	10	0	2.3	0.0
Materials, Non-Metallic	18	6	8	1.4	1.9
Mathematics	19	5	21	1.1	5.1
Meteorology	20	14	12	3.2	2.9
Navigation	21	4	5	0.9	1.4
Nuclear Engineering	22	19	7	4.4	1.7

TABLE 11

SUMMARY OF DOCUMENTS ORDERED BY STAR CATEGORY FOR 334 SEARCHES
(continued)

<u>Category Title</u>	<u>Category Number</u>	<u>No. Ordered 1968--1969</u>		<u>% of Total 1968--1969</u>	
Physics, General	23	13	37	3.0	9.0
Physics, Atomic, Molecular & Nuclear	24	2	8	0.5	1.9
Physics: Plasma	25	2	35	0.5	8.5
Physics: Solid State	26	8	11	1.8	2.6
Propellants	27	3	0	0.7	0.0
Propulsion Systems	28	1	1	0.2	0.2
Space Radiation	29	5	3	1.1	0.7
Space Sciences	30	5	9	1.1	2.1
Space Vehicles	31	0	2	0.0	0.4
Structural Mechanics	32	45	18	10.3	4.3
Thermodynamics and Combustion	33	44	21	10.1	5.1
General	34	3	10	0.7	2.4
Unclassified		17	2	3.9	0.4
Total		436	410		

C. Operation

Usually within a week of the request date, the searches were run against an inverted file on an IBM 360/75 housed at the Triangle Universities Computation Center, Research Triangle Park. The program for this search routine is written in Fortran and utilizes assembler language sub-routines to facilitate data transfer along with IBM utility file management routines to manipulate the file, which is mounted on two IBM 2316 disk packs. The search routine processes accession numbers in a simple Boolean logic format, with provisions for logical "and," "or," and "not" operations. The output is an accession number string, displaying the output of each individual operation as the search progresses. Rapid turnaround is possible between the user and the machine, enabling preparation

of more than one search profile for submission to the machine and refinement of search strategy as the output of each successive search is reviewed. This search program also permits the engineer to employ in his strategy as many postings, terms, intersections, or negations as he feels required by the question.

After machine processing, the abstracts for each accession number were then manually retrieved from a card file, evaluated by the engineer, reproduced and sent to the student. The student ordered full copies of pertinent documents at 10¢ per page. He was encouraged to use his local university library wherever possible to secure these documents.

Work order sheets, which followed each search as it progressed through the Center, were used to keep an accurate record of both the machine and labor costs of the program. Any employee who devoted his time to a particular search entered that time in the appropriate area of the sheet. In addition, when abstract and document copies were made, either by reproduction from microfiche or by Xerox copying, the total number of pages, the number of documents or abstracts, and the time required to process were recorded directly. Table III presents the average engineering, clerical, and computing time required to process the 179 searches. The number of evaluated hits sent to the student averaged 136 per search, from which the student ordered an average of two documents per search. These, of course, were in addition to those they had secured from their own university. Figure 2 shows the sources used by the students in securing documents cited in their computer searches.

TABLE III

LABOR AND COMPUTING TIME REQUIREMENTS

	<u>Per Search</u>	<u>Total Program</u>
Engineering Time	2.86 hrs.	512.50 hrs.
Load Sheet Time	.81 hrs.	145.33 hrs.
Keypunch Time	.11 hrs.	19.77 hrs.
Postings	21,616	4,869,293
Terms	48*	8,573
Intersections	4	710
Hits	424	76,072
Evaluated Hits	136	24,238
Computer Time		
Regular	2.90 min.**	518.37 min.
Revision	.75 min.	133.81 min.
Total Computer Time	3.65 min.	652.18 min.
Abstract Time	2.13 hrs.	382.72 hrs.

* In January of 1968, with the change in NASA's indexing philosophy from the use of an open, largely unstructured vocabulary to the use of a controlled, hierarchially-related vocabulary, each search came to be passed against two files--the 1962-1967 file and the 1968-1969 file, each with its own set of index terms. In compiling this list, no attempt has been made to eliminate duplicate terms on a particular search. Thus the average number of terms is the average for the 1962-67 file plus the average for the 1968-69 file. The term overlap may run as high as 50%.

** In general with the search program used, computing time required per search depends strongly on the number of postings per search and to a lesser extent on the number of index terms used. Minimum computing time per search is achieved when the number of postings is less than about 10,000 and the number of terms is less than about 15.

Generally, about two months after the student received his search, he was sent a questionnaire to complete. The questionnaire was designed to measure the students' satisfaction with the service in terms of what he received, his future job plans, and his field of interest. The first year's questionnaire turned out to be too subjective for easy quantification with the result that the second year's questionnaire provided largely multiple choice questions. Through diligent effort, about 90% of the search users were persuaded to complete the questionnaires.

A significant operational feature of the program which contributed greatly to its high degree of acceptance was the designation of a single person to receive all student requests, follow them through the organization, and carry on the oral and written correspondence associated with each search. With this procedure, the student could always contact the same person, someone who was familiar with the status of his search. The rapport thus established contributed to the student's feeling that the organization was interested in more than his money. From an administrative point of view this move was highly successful in that the status of each search or group of searches could be easily established.

Probably the most important single factor for insuring a successful search output is communication between the STRC applications engineer and the search requestor. For this reason, a personal conference was conducted for each search between the appropriate applications engineer, armed with NASA thesaurus and dictionary, and the student, who was encouraged to bring with him to the conference specific notes on his interest area. The ensuing discussion involved a concerted effort on the part of both the engineer and the student to find the precise key words to describe the student's particular question and to combine those key words by Boolean equation to obtain maximum output from the NASA collection. The engineer was required to be on guard to get the thrust of the research correct, and eye-to-eye contact with the student was found to be the most efficient means of achieving this goal.

III. RESULTS

A. Questionnaire Returns

It has proven quite difficult, if not virtually impossible, to establish all the necessary and significant response correlations from statistical analysis of nearly 300 user questionnaires. The responses themselves, despite the effort to make them as objective as possible, remain somewhat subjective. Responses to questions are also often colored by events unrelated to the effectiveness of the search in providing information on the question asked: The student has in the meantime changed his mind on the thesis topic; there was a breakdown in communications between the student and the engineer writing the search; when many search requests are processed at the same time, someone waits a little longer than usual; one student became concerned that computer search techniques would eliminate the warm, comfortable feeling people were supposed to get spending their time in the library among books doing a literature search. Finally, students, rightly or wrongly, are not very tolerant of a system that, for reasons of economy and program direction, does not include all their favorite journals or all the articles within the journals reviewed, nor are they very understanding of the problems indexers have in assigning terms to an article so that everyone working in the field will be sure to ask the question necessary to retrieve it. Also there was no effort made to limit the search requests to those fields which the applications engineer knew to be well-supported in the NASA file. Some were just interested in seeing such a system operate.

In general, about 70% of the students were satisfied with the service, irrespective of their field of interest. Sixty percent of the students found at least a few very pertinent documents they had not seen before (Figure 3). Forty percent estimated they had saved an average of forty hours in the library performing a manual search for directly pertinent information (Figure 4) or background information (Figure 5). About 30%

felt they did not gain sufficient information to make the search worthwhile. The remainder gained what they considered to be valuable background or peripheral information they would not have found ordinarily.

Costs of the search program were met largely from research grants or university resources, but 21.5 percent of the students indicated they would be willing to pay out of personal resources (Figure 6). Twenty percent felt students would pay only \$5. Another twenty percent would agree on a \$15 figure (Figure 7). In view of the fact that the average search using this file, computer and inverted search system costs about \$22 in computer time, another \$24 in direct labor to pull, print, and refile abstracts, look up terms and write search strategy, prepare load sheets, keypunch, and mail out searches, it is evident that a considerable subsidy will continue to be required to make this service available to unsupported graduate students generally.

Approximately forty-five percent of the students expected to remain in the academic community. Most of the remainder expected to work in industrial research and development activities upon completion of their degree requirements. Only 1.5 percent indicated plans to work in manufacturing, sales, or finance (Figure 8). Use of computerized information retrieval services would be unconditionally recommended to future employers by 68.5 percent (Figure 9).

Generally, the major complaint with the service as now constituted is the file's lack of breadth, particularly in the chemical area. The following list was compiled from student answers to the user questionnaire and presents suggestions for additions to the information resources offered by STRC.

- Papers from journals on energetics
- Engineering Index
- Civil Engineering applications on Earth
- Soil and Foundation Advances
- Biochemically-medically oriented sources
- Metallurgy
- Physics Abstracts
- Geodex-Structural Engineering
- Math File
- ISI File
- Earlier dated abstracts
- Applied Science and Technology Index
- EPR in Minerals
- Dissertation Abstracts
- Management Techniques
- Less aerospace and more information regarding
other fields
- Statistical material in international economics
- Topology
- USDA File
- Biological Journals
- IEEE Abstract Service
- Industrial Engineering Abstracts
- Food Technology and Food Science Abstracts
- Pharmacological Aspects of Space Investigations
- Current Research on Human Behavior

The appendix to this report contains complete responses from all students who answered the questionnaire. The search title, university, department, number of evaluated abstracts, and number of documents ordered from the Center are included as a heading to each group of responses.

B. Effects on Student Research

A rather detailed study of the research activities of eight students in Home Economics was made to determine why information in the file was not regarded by the students as generally useful. The graduate administrator of the school was most helpful in securing and scheduling students interested in assisting in the study. The eight searches were all written by the present writers, and a detailed interview with each search recipient

was tape recorded for later transcription and study when the student had had about two months to study the abstracts. In general the students had had only a limited amount of undergraduate instruction in the physical sciences. Some had taken a few more advanced courses in psychology, statistics, or sociology. Two were doctoral students. The remaining M.S. students expected to be able to complete their work in about one academic year.

The thesis problems selected were usually those which someone trained in the physical sciences would regard as unsolvable in any reasonable period of time (e.g., how can blind people be taught to discriminate the color of clothing, how do the lighting conditions in a study area affect grades). Since the students were not well trained in appreciating or making extensive physical measurements, suggestions to carry out tests to quantify the parameters involved were not received enthusiastically. In almost every case the investigation reduced to extraction of comments from the literature plus the formulation, administration, and analysis of a questionnaire involving small populations. When articles relating to psychometrics or statistical design of experiments were pointed out, the response was generally that the articles were too technical to be useful. Likewise articles on the measurement of tactile perception or measurement of spectral intensity distribution, etc., were regarded as too unrelated and too "technical" to be of use. It is of course obvious that one would expect to find little or nothing in the NASA file on the clothing preferences of college girls or the effect of the home environment on the adjustment of children to kindergarten. Yet the NASA file is replete with material on the construction, administration, and interpretation of psychological fitness tests for pilots and astronauts. If one is serious about doing meaningful research on psychological topics, it is difficult to understand how such work can be ignored.

If the situation described above exists in other areas of graduate education, and there is reason to believe that it does, one seems forced

to conclude that the scope of thesis topics ought to be reduced so that sufficient depth can be secured to produce meaningful results or that there is little real justification for what is usually understood to be thesis type research in that field.

As a contrast to this situation, one can cite the work of some forestry students interested in how plant spacing affects the water balance of the forest. Realizing the extent of investigation required, one student took upon himself the problem of measuring the moisture balance in a single leaf as affected by incident radiation, temperature, and wind velocity. He hopes some time in his professional career to be able to generalize this to a single tree and then to a forest canopy. For his work, he could make excellent use of the NASA data on wind tunnels, radiometers, psychrometers, etc. None of this dealt directly with tree leaves of forests but rather with instrumentation techniques and basic physics. These could, with imagination, be applied to his problem. The failure to be similarly imaginative in adapting existing work in the physical sciences to other areas of physical science and to the biological and behavioral sciences severely inhibits progress in these areas.

C. Effects on STRC Operations

An important immediate effect of the Graduate Student Program was that it brought to the attention of top-level university administrators and faculty NASA's Technology Utilization Program. As STRC representatives gained entrance to a university campus by the introduction or continuation of a special subsidized program for graduate students, they also took every opportunity possible to promote service to professors on a regular-fee basis. Fifteen professors requested service directly as a result of the initial visit to a campus to solicit student clients, and approximately ten others later contacted STRC after reviewing searches done for their students or students of their associates.

One North Carolina State University student who received a search during the first year of the project is now an assistant professor at Virginia Polytechnic Institute. Not only was he instrumental in making the service known at that institution, but he also requested a regular \$75 search for his own use.

The Center was invited by the American Society for Information Science to submit a paper for its 1969 Annual Meeting entitled "Information Retrieval." This paper describing the Graduate Student Program -- "Literature Searches for Theses by Computer - Results of the First Two Years of the Program" -- was accepted for publication and will be presented in San Francisco by Mr. Chenery, STRC's Director.

IV. CONCLUDING REMARKS

The program to provide low-cost literature searches to graduate students has, it is felt, led to improvements in the quality of the research performed by the participating students. Since the evaluation of research is usually a subjective matter, it is not possible to quantize these improvements rather, the judgement is based on the students' own feeling for the value of the service and the writers' comparison of the research of students using the service with those who did not. If one is willing to accept the premise that greater access to the work of others leads to improvements in one's own work, then it follows that the breadth and depth of the program should be increased. More disciplines should therefore endeavor to index their literature in a compatible, machine-searchable form. Libraries should undertake to provide low-cost access to a variety of such files for their clients. This could be done by training one person in a library to write such programs and to operate a slow-speed terminal connected to a computer which serves a number of libraries for this purpose. All the applicable files would be stored and

updated* at the computing center.

It is believed that with such a program, substantial improvements in the research performed at institutions with large library holdings or those poorly connected with federally-supported research programs would be apparent within a relatively short period of time. The major costs in such a program are those of file construction and maintenance. Since construction of literature files is likely to be considered by more and more disciplines in the future, ways will be found to spread the cost. It is desirable, however, that the format and search systems be compatible so that inter-disciplinary searching is encouraged. To obtain the maximum benefit of implementation of such a program, more elementary files (from trade journals or even literary or opinion journals, for example) should be included and undergraduate students from every field be encouraged, as a part of their course work, to use the system.

* With data supplied by the indexing and abstracting services.

Figure 1.

PARTICIPATING SCHOOLS IN GRADUATE STUDENT PROGRAM: 1967 - 1969

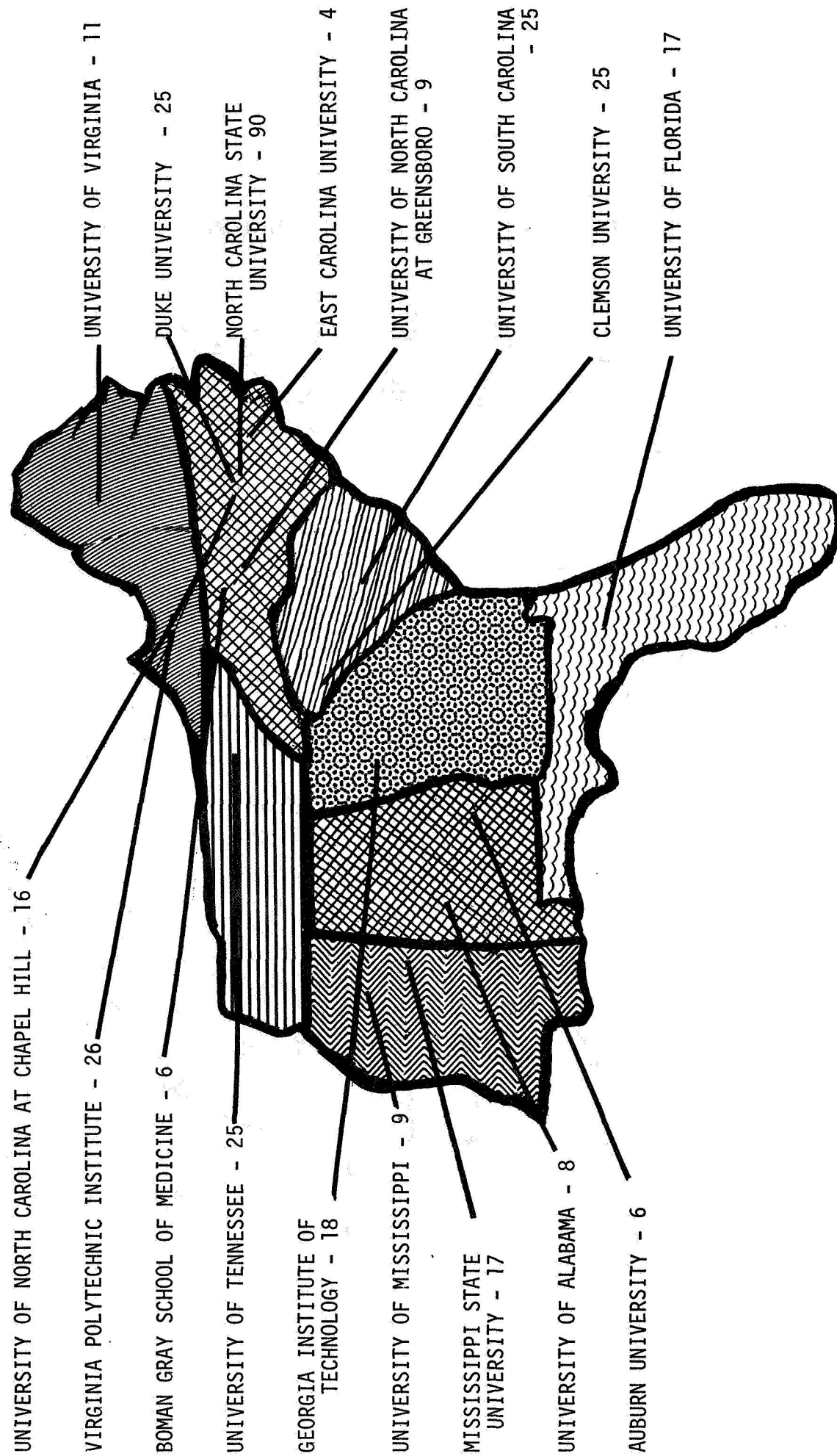


Figure 2.

SOURCES FOR SECURING DOCUMENTS CITED IN COMPUTER SEARCH

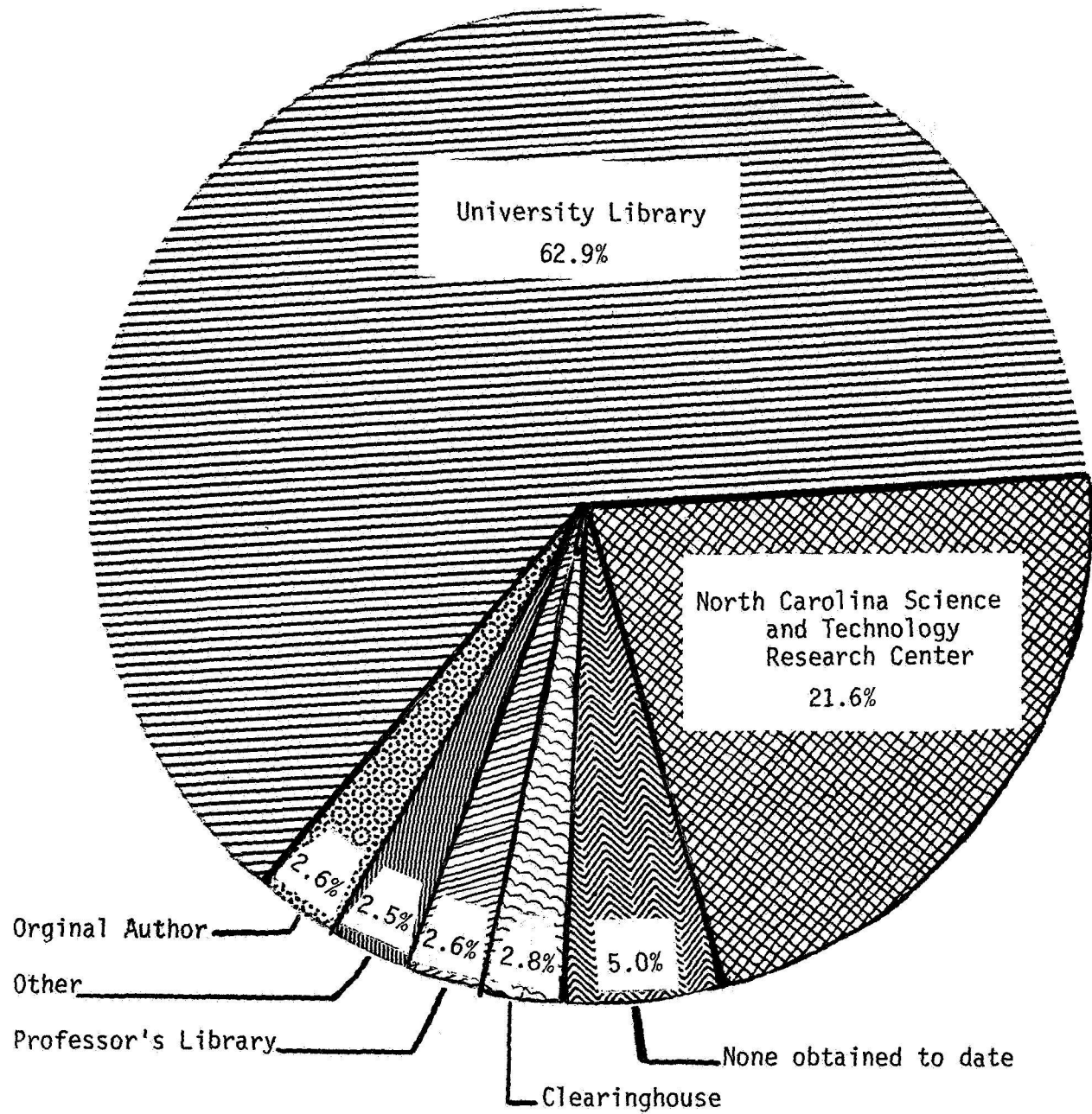
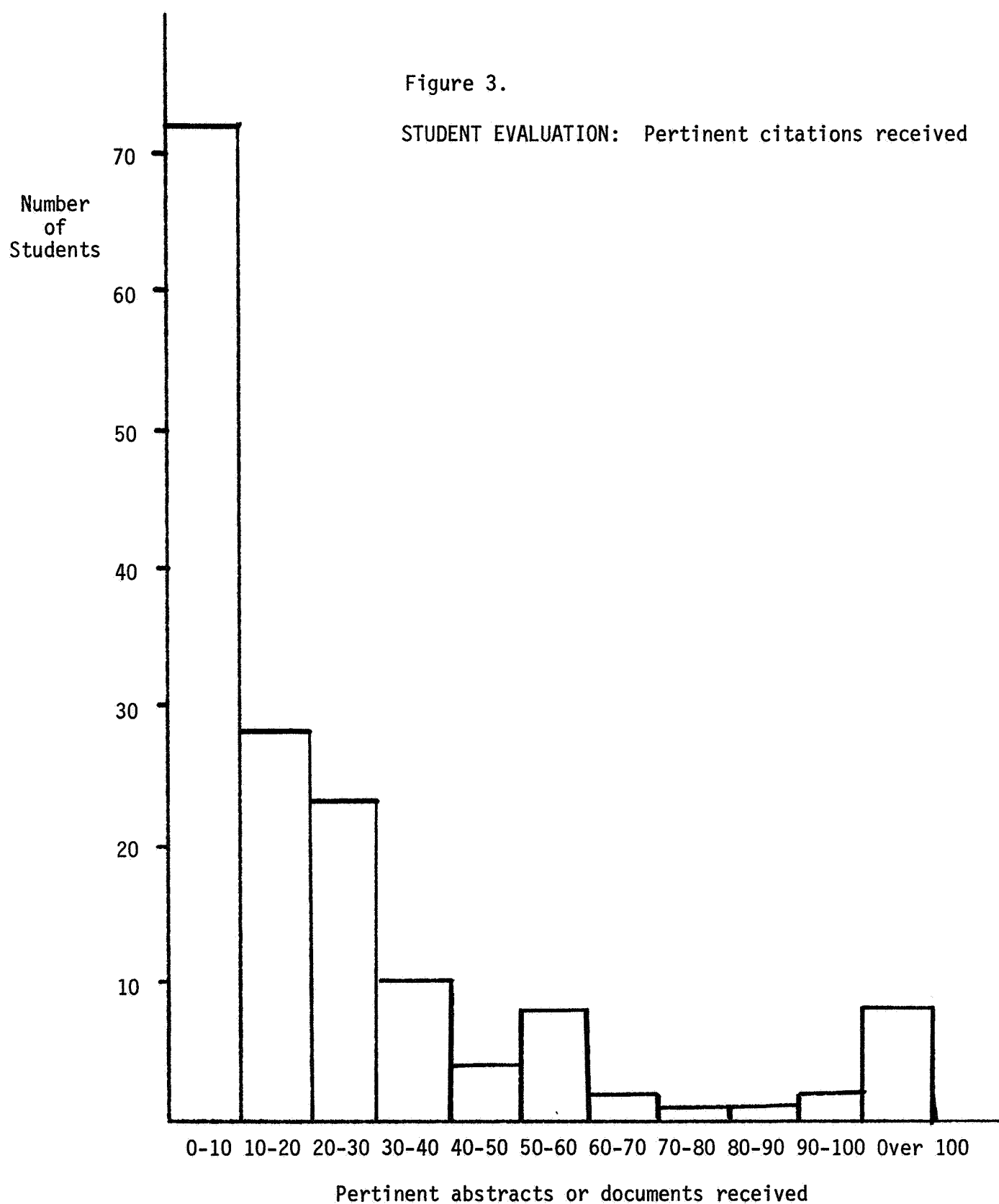


Figure 3.

STUDENT EVALUATION: Pertinent citations received



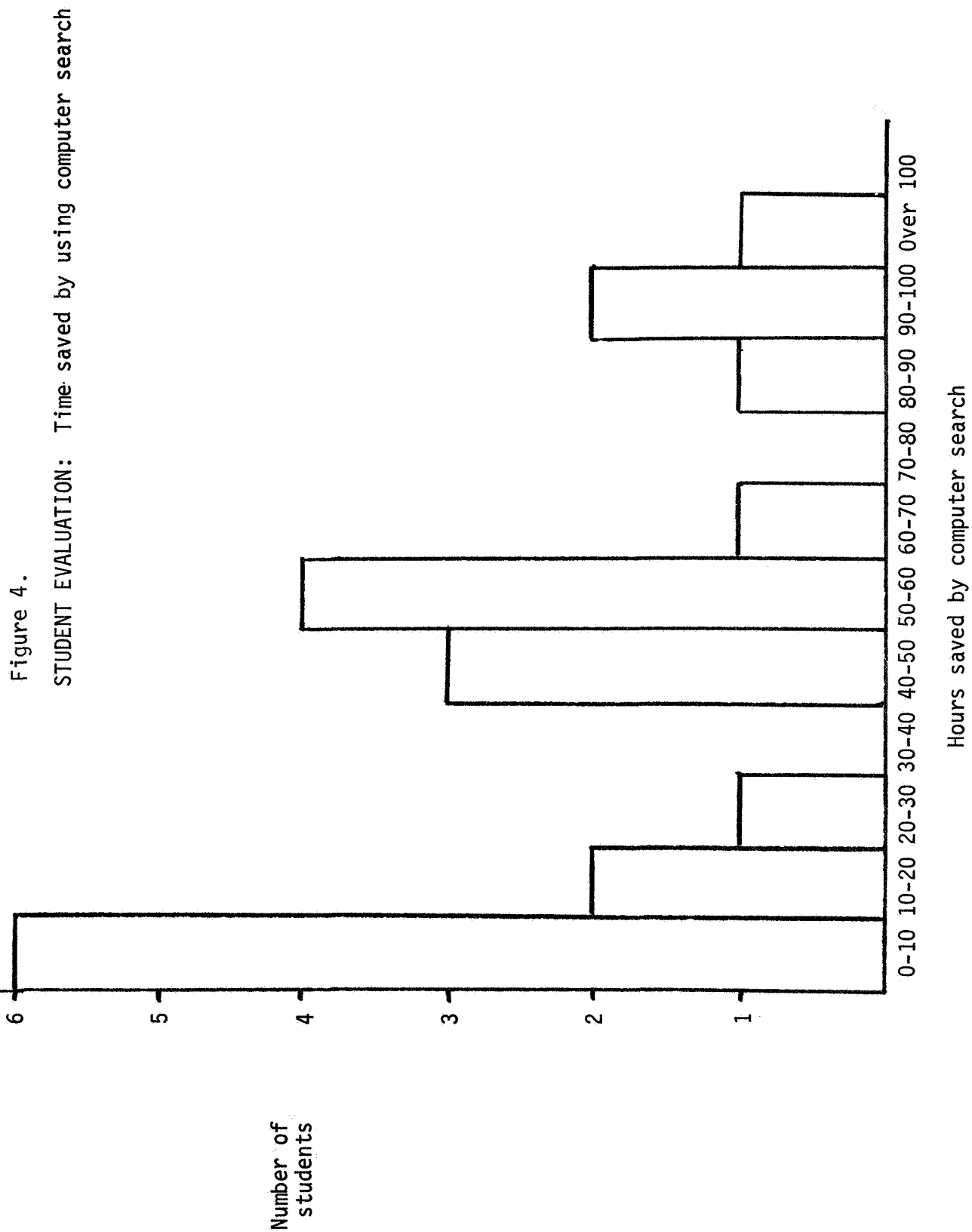


Figure 5.

STUDENT EVALUATION: Time saved in looking for
background material

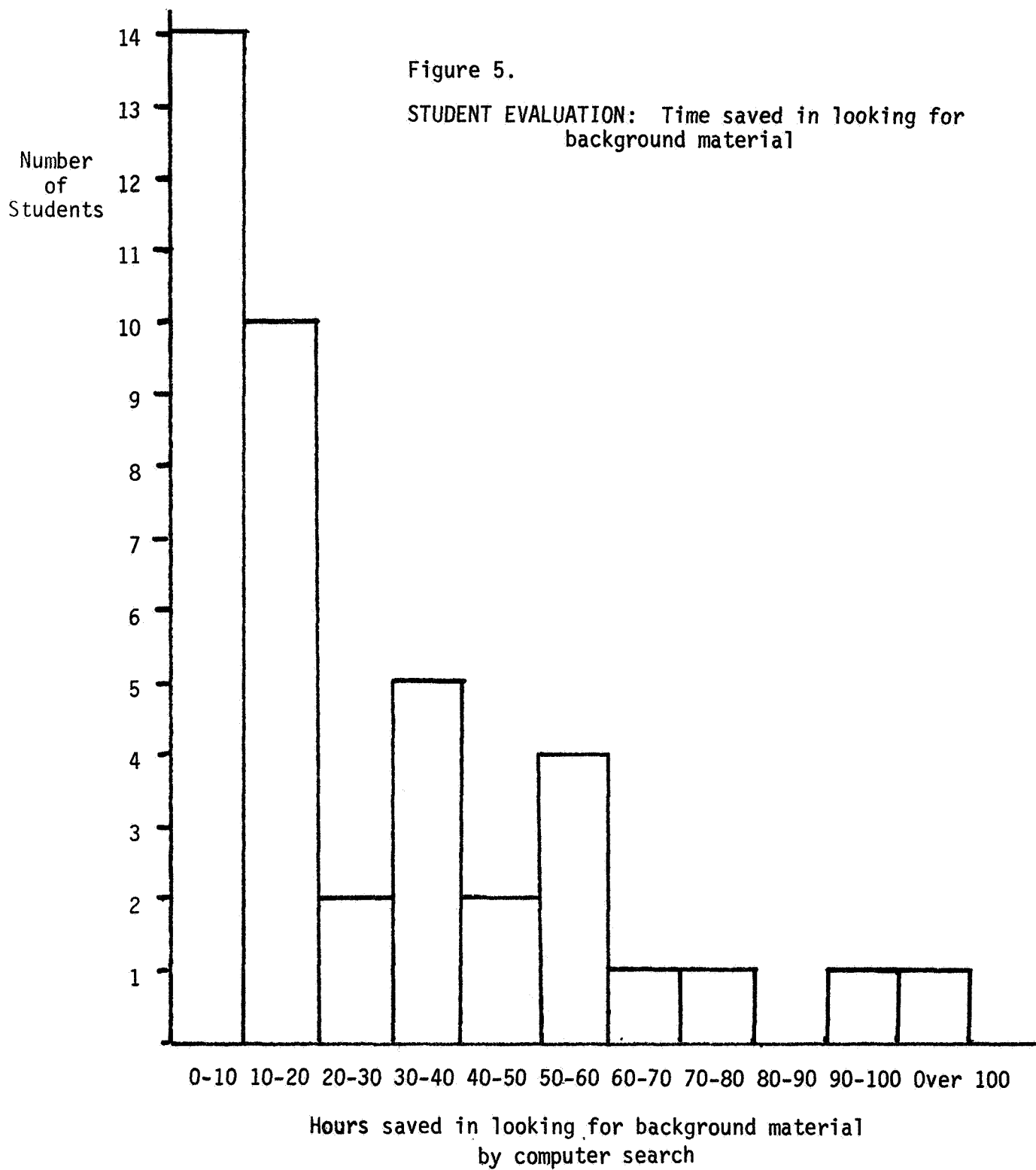


Figure 6.
HOW THE COST OF THE SEARCH WAS MET

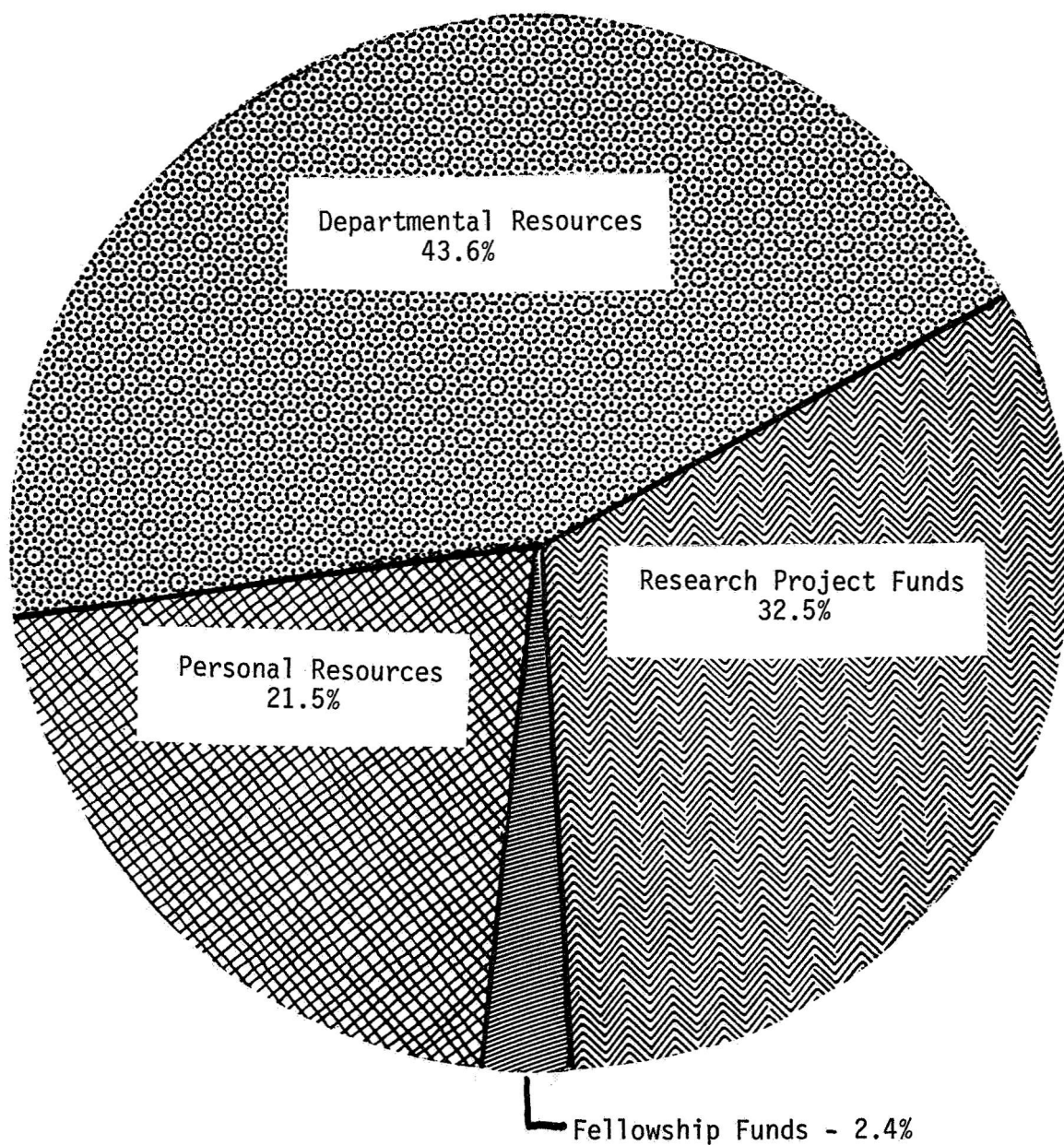


Figure 7.

How much would you be willing to pay for this search service?

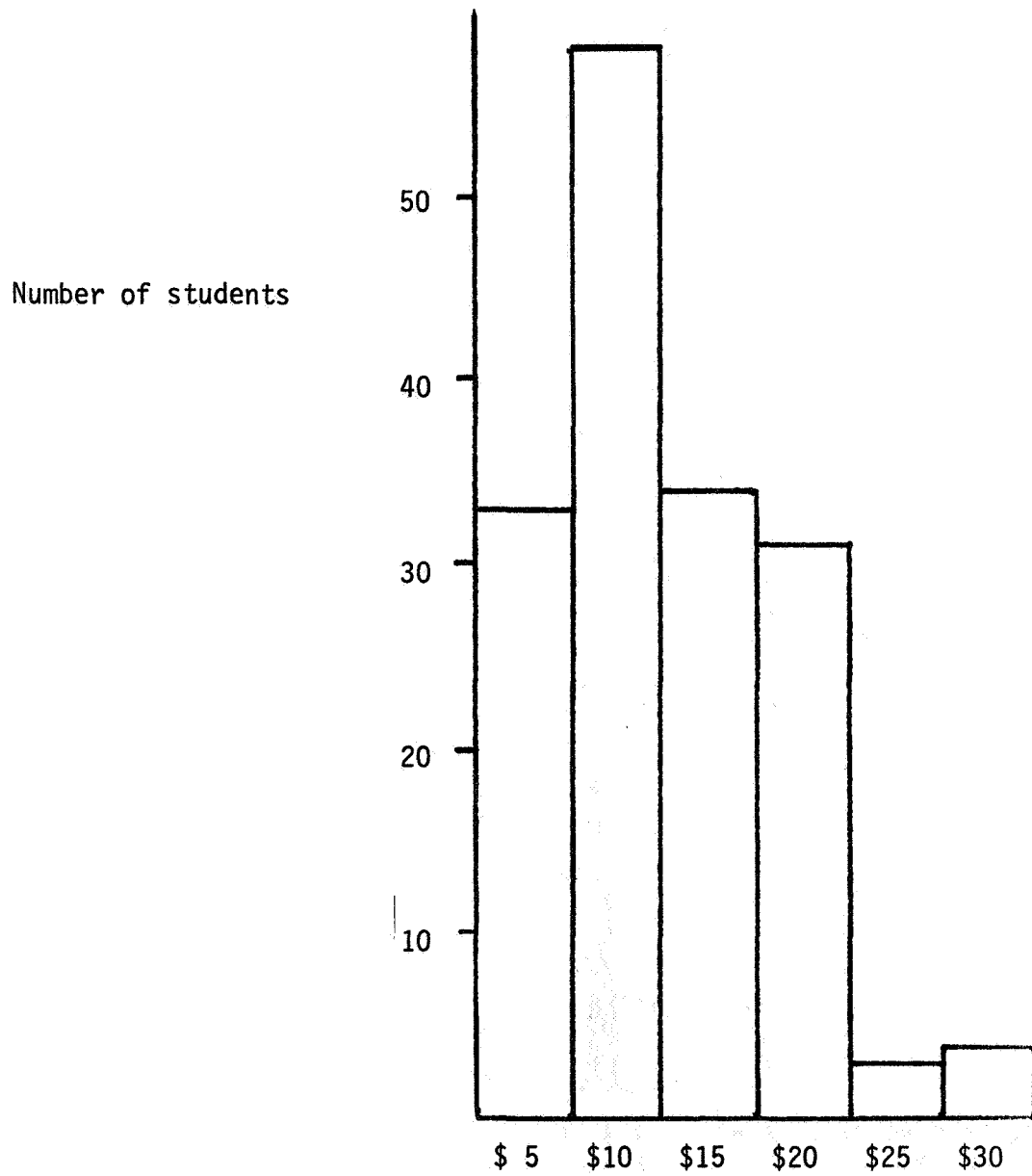


Figure 8.

Expected employment of student participants after graduation:

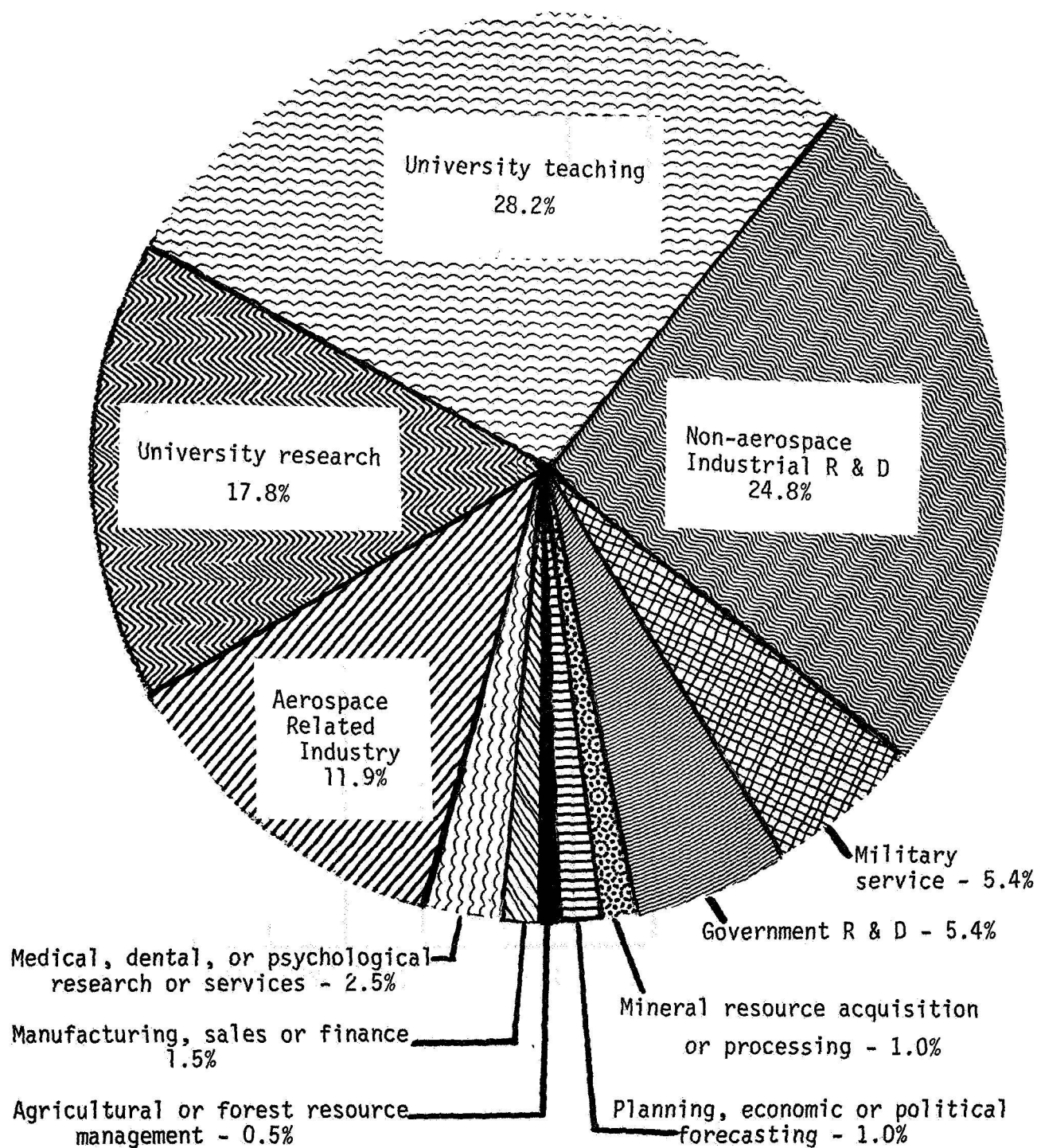
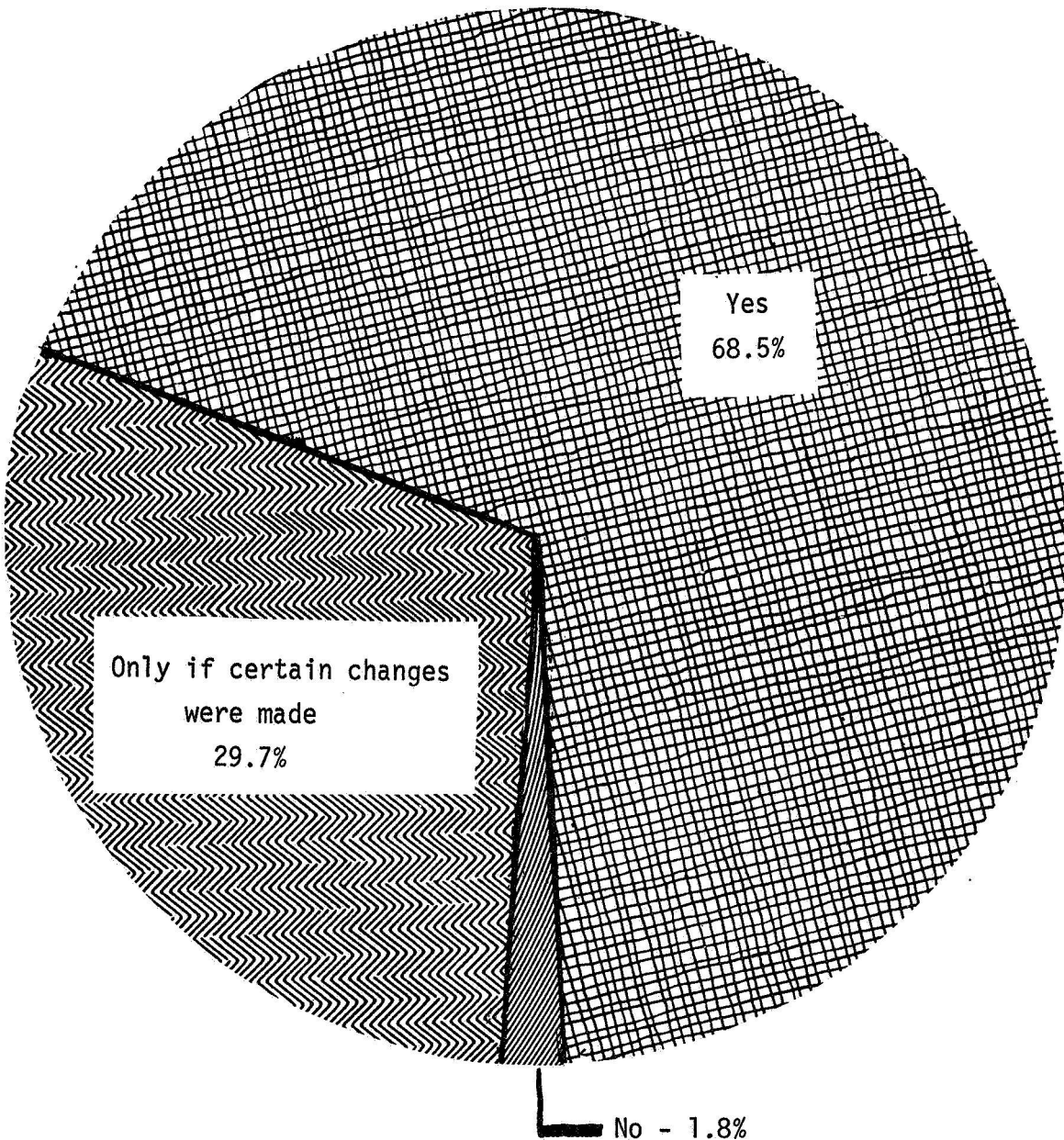


Figure 9.

Would you recommend to your future employer the use of information retrieval services such as this ?



APPENDIX
RESPONSES TO UTILITY SURVEY

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Adhesion of Metal Surfaces to Metal Surfaces

SEARCH NO.: 1354 NO. ABSTRACTS SENT: 353 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my
problem which I probably would have spent 30 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
at least 35% - 45%
3. How many of these pertinent citations had you seen before?
less than 10% of the 35-45%
4. From what source did you secure copies of the documents you wanted?
university library
NASA, Langley Research Center library
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

government R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Nuclear Science Abstracts

10. Do you care to make any additional comments on this program?

My thanks to Dr. F. O. Smetana and J. G. Vann for a job "well done."
I thought the time between search request and abstract delivery was surprisingly short and that the survey produced much information directly related to the "Adhesion" area. I was also pleasantly surprised that the survey yielded abstracts of very recently published documents.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Mass Transfer to or from Drops in a Liquid-Liquid System

SEARCH NO.: 1368 NO. ABSTRACTS SENT: 64 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of South Carolina DEPARTMENT: Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
no answer
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

military service

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

If Chemical Abstracts were added to information bank, the service would probably be most valuable in Chemical Engineering problems

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Water Treatment by Coagulation and Flocculation

SEARCH NO.: 1372 NO. ABSTRACTS SENT: 38 NO. DOCUMENTS ORDERED: 1

UNIVERSITY: University of South Carolina DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
none
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
NCSTRC
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

manufacturing, sales, or finance

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Double Base Fuels

SEARCH NO.: 1373 NO. ABSTRACTS SENT: 71 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of South Carolina DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional information relevant to my problem which
I probably would have spent 20 hours to find.
it served to give me confidence in the results of my manual search.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

most
3. How many of these pertinent citations had you seen before?

most
4. From what source did you secure copies of the documents you wanted?

university library
DDC
5. How was the cost of the search met?

departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

Yes, if certain changes are made particularly if amount of source material is expanded.

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing unclassified portion of TAB), Textile Technology Digest, Dissertation Abstracts

10. Do you care to make any additional comments on this program?

The program is good, but enlargement of source material is critically needed. This is essential if R & D engineers are to make use of the facility.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Thermocouple Dynamic Response

SEARCH NO.: 1374 NO. ABSTRACTS SENT: 55 NO. DOCUMENTS ORDERED: 5

UNIVERSITY: University of South Carolina DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
2
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
NCSTRC
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file

10. Do you care to make any additional comments on this program?

This program is very helpful in getting the documents.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Gas Purification

SEARCH NO.: 1376 NO. ABSTRACTS SENT: 132 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Clemson University DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
5
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
graduate school funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes were made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Ion Exchanger Membranes - Irreversible Processes

SEARCH NO.: 1377 NO. ABSTRACTS SENT: 43 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of South Carolina DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

2

3. How many of these pertinent citations had you seen before?

1

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for
the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts

10. Do you care to make any additional comments on this program?

although this particular search was of very limited use because of a rather narrow search in a file of specific nature, this is a very useful program which needs enlargement in its scope.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Lubrication in Powder Metallurgy

SEARCH NO.: 1378 NO. ABSTRACTS SENT: 100 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of South Carolina DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
served only to confirm that I had already found all the documents really
pertinent to my problem, i.e., it served to give me confidence in the
results of my manual search.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

3
3. How many of these pertinent citations had you seen before?

1
4. From what source did you secure copies of the documents you wanted?

did not secure copies
5. How was the cost of the search met?

departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include varied information

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Solvent Extraction of Lanthanides and Actinides

SEARCH NO.: 1379 NO. ABSTRACTS SENT: 85 NO. DOCUMENTS ORDERED: 19

UNIVERSITY: University of South Carolina DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 70 hours to find.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

20

3. How many of these pertinent citations had you seen before?

8

4. From what source did you secure copies of the documents you wanted?

NCSTRC

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for
the service?

\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

military service

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Shock Tube Dissociation

SEARCH NO.: 1380 NO. ABSTRACTS SENT: 52 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of South Carolina DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
90%
3. How many of these pertinent citations had you seen before?
10%
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Nuclear Science Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: ESR of Manganese

SEARCH NO.: 1381 NO. ABSTRACTS SENT: 131 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of South Carolina DEPARTMENT: Physics

1. The computerized information retrieval service offered by NCSTRC
provided mw with valuable material I overlooked.
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
two
3. How many of these pertinent citations had you seen before?
one
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
university resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

The service found one important paper I overlooked in a journal I search regularly, otherwise quite useless information was supplied.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: ESR of Minerals
SEARCH NO.: 1382 NO. ABSTRACTS SENT: 70 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of South Carolina DEPARTMENT: Physics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
one
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include EPR in minerals

10. Do you care to make any additional comments on this program?

The information that I received was not pertinent to my question because according to the applications engineer, "search results approach zero with respect to natural minerals." However, I consider that the service is worthwhile and useful in principle.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Yarn & Fiber Properties & the Dynamics of Breakage

SEARCH NO.: 1383 NO. ABSTRACTS SENT: 155 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Clemson University DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC
served only to confirm that I had already found all the documents really
pertinent to my problem, i.e., it served to give me confidence in the
results of my manual search.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
25

3. How many of these pertinent citations had you seen before?
20

4. From what source did you secure copies of the documents you wanted?
university library

5. How was the cost of the search met?
departmental resources

6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Textile Technology Digest

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: 3-D Theory of Orthotropic Cylinders

SEARCH NO.: 1386 NO. ABSTRACTS SENT: 99 NO. DOCUMENTS ORDERED: 5

UNIVERSITY: University of South Carolina DEPARTMENT: Mathematics

1. The computerized information retrieval service offered by NCSTRC
was my major information resource; its use saved me untold hours over
what I would have spent in a manual library search to obtain the same
material.
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

1/2
3. How many of these pertinent citations had you seen before?

none, we had not previously done a literature search
4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library
5. How was the cost of the search met?

university resources
6. How much do you feel most students would be willing to pay personally for
the service?

\$25

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

Excellent program as is, no suggestions and/or improvements.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Waste Water Reclamation and Reuse

SEARCH NO.: 1388 NO. ABSTRACTS SENT: 99 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Clemson University DEPARTMENT: Environmental Systems Engr.

1. The computerized information retrieval service offered by NCSTRC provided me with completely useless information.
2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?
none
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for the service?
in my field, nothing

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?
- university teaching, primarily
8. Would you recommend to your future employer the use of information retrieval services such as this?
- depends on area I want searched
9. What could be done to make the service more valuable to you personally?
- enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB)
10. Do you care to make any additional comments on this program?
- The information on file did not overlap my field of interest. From reports from other users I know that the service can be valuable. I, unfortunately, did not mesh with your data file.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Ion Exchange of Heavy Metals

SEARCH NO.: 1391 NO. ABSTRACTS SENT: 78 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of South Carolina DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
none
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Textile Technology Digest

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: The Argon-Potassium Method of Age Dating

SEARCH NO.: 1392 NO. ABSTRACTS SENT: 617 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Georgia Institute of Tech. DEPARTMENT: Geophysical Sciences

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 20 hours to find.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

15, 5 of which I had not found before

3. How many of these pertinent citations had you seen before?

10

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for
the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

military service

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible
enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Uptake of Oxygen, Carbon Dioxide, Glucose & Water by Human Brain

SEARCH NO.: 1393 NO. ABSTRACTS SENT: 116 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Clemson University DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
was my major information resource; its use saved me 40 hours over what I
would have spent in a manual library search to obtain the same material.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
50
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
none obtained to date
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$30

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R&D
non-aerospace industrial R&D
medical, dental, or psychological research or services

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Ultrafiltration as Applied to Artificial Kidney

SEARCH NO.: 1394 NO. ABSTRACTS SENT: 82 NO. DOCUMENTS ORDERED: 7

UNIVERSITY: Clemson University DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC

provided me with additional background information relevant to my problem which I probably would have spent an infinite number of hours to find.
provided me with valuable material I would not have found or used otherwise.
provided only a limited number of citations of interest to me, not enough really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

10%

3. How many of these pertinent citations had you seen before?

1

4. From what source did you secure copies of the documents you wanted?

NCSTRC

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily or non-aerospace industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

Yes, if certain changes are made to include more "chemical" research

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar versions of Chemical Abstracts

10. Do you care to make any additional comments on this program?

My only comment deals with enlargement. In its present state, I do not believe the files include enough material on heat, mass, and momentum transfer research as generally used by chemical engineers. Probably the whole field of "chemical research" should be considered to really be useful to chemical engineers and the chemical industry. By the above reference to Chemical Abstracts you have already considered this route; hence, this comment is probably redundant. Thus, I can only urge that this addition be made.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Acoustics & process drying & curing
SEARCH NO.: 1395 NO. ABSTRACTS SENT: 11 NO. DOCUMENTS ORDERED: 3
UNIVERSITY: Clemson University DEPARTMENT: Textile Science

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
3
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
NCSTRC
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$1

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching and research

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, Textile Technology Digest, papers from journals on energetics (fluid flow, heat & mass transport)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Mathematical Models of Checkout Systems

SEARCH NO.: 1396 NO. ABSTRACTS SENT: 149 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Clemson University DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC

was my major information resource; its use saved me 50 hours over what I would have spent in a manual library search to obtain the same material. provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

30

3. How many of these pertinent citations had you seen before?

10

4. From what source did you secure copies of the documents you wanted?

university library
Information Center, Redstone Arsenal, Huntsville, Alabama

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
aerospace-related industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
enlarge the data file to include unclassified portion of Defense Department
file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Shear Rate & Diffusion of Gas in Non-Newtonian Fluids

SEARCH NO.: 1398 NO. ABSTRACTS SENT: 121 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Clemson University DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
24
3. How many of these pertinent citations had you seen before?
2
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

Makes possible a more thorough search of the literature than would be feasible by a personal search.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Mechanics & Properties of Soils as Related to Structural Anchors

SEARCH NO.: 1399 NO. ABSTRACTS SENT: 158 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Clemson University DEPARTMENT: Civil Engineering

1. The computerized information retrieval service offered by NCSTRC

provided only a limited number of citations of interest to me, not enough really to make the service worthwhile

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

none directly (used several to find other sources)

3. How many of these pertinent citations had you seen before?

very few

4. From what source did you secure copies of the documents you wanted?

university library (Geo. Tech. Library)

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$10, \$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

Manufacturing--erection and construction
Mineral resource acquisition or processing

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include civil engineering applications on the planet Earth--soil & foundation advances
make the applications engineer more accessible

10. Do you care to make any additional comments on this program?

The big problem with the bibliography furnished me is that a bulk of the information was related to lunar soils.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Aqueous Solution Organic Adsorption

SEARCH NO.: 1400 NO. ABSTRACTS SENT: 73 NO. DOCUMENTS ORDERED: 21

UNIVERSITY: University of South Carolina DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC

was my major information resource; its use saved me 2 hours over what I would have spent in a manual library search to obtain the same material. provided me with additional background information relevant to my problem which I probably would have spent 2 hours to find. provided me with valuable material I would not have found or used otherwise. provided only a limited number of citations of interest to me, not enough really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

4

3. How many of these pertinent citations had you seen before?

none

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Antenna Synthesis

SEARCH NO.: 1401 NO. ABSTRACTS SENT: 138 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC

no answer

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

0

3. How many of these pertinent citations had you seen before?

no answer

4. From what source did you secure copies of the documents you wanted?

no answer

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery

10. Do you care to make any additional comments on this program?

The bibliography I received covered the subject quite well. However, at the present time nothing has been published on the particular problem that I am interested in.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Dynamic Loading of Metals

SEARCH NO.: 1404 NO. ABSTRACTS SENT: 96 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of South Carolina DEPARTMENT: Engineering

1. The computerized information retrieval service offered by NCSTRC

was my major information resource; its use saved me 4 hours over what I would have spent in a manual library search to obtain the same material. provided me with additional background information relevant to my problem which I probably would have spent 10 hours to find. provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

23

3. How many of these pertinent citations had you seen before?

5

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
make the applications engineer more accessible

10. Do you care to make any additional comments on this program?

This program really gave a good service to me, but I think the classification of all your collected documents should be made into many narrow groups so that when one call for literature survey is made, it will give much more pertinent citations.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Supersonic Combustion

SEARCH NO.: 1406 NO. ABSTRACTS SENT: 133 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Georgia Institute of Tech. DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
1
3. How many of these pertinent citations had you seen before?
1
4. From what source did you secure copies of the documents you wanted?
already in possession
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

no answer

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

The search missed completely an entire area covered by one descriptive statement.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Speech Pattern Recognition
SEARCH NO.: 1407 NO. ABSTRACTS SENT: 116 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: N. C. State University DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 10 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
4
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
enlarge the data file to include IEEE Transactions, Acoustical Society of America Journal

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Pore Pressure in Soils

SEARCH NO.: 1408 NO. ABSTRACTS SENT: 90 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of South Carolina DEPARTMENT: Civil Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

no answer

3. How many of these pertinent citations had you seen before?

no answer

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for
the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible
enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

I didn't really start by Ph.D. program up to now. I would like to ask the help from NCSTRC whenever I need it. Thank you very much for your service/

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Suppression of Combustion Instability

SEARCH NO.: 1413 NO. ABSTRACTS SENT: 83 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Georgia Institute of Tech. DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
was my major information resource; its use saved me 8 hours over what I
would have spent in a manual library search to obtain the same material.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
20
3. How many of these pertinent citations had you seen before?
15
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible
enlarge the data file to include chemical concentrates or similar version
of Chemical Abstracts and Nuclear Science Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Combustion Stability or Instability in Air-Breathing Devices
SEARCH NO.: 1414 NO. ABSTRACTS SENT: 131 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: Georgia Institute of Tech. DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent a number of hours to find.
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
about 30%
3. How many of these pertinent citations had you seen before?
most of them
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Turbulent Diffusion

SEARCH NO.: 1415 NO. ABSTRACTS SENT: 323 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Georgia Institute of Tech. DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
about 5
3. How many of these pertinent citations had you seen before?
3
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible

10. Do you care to make any additional comments on this program?

For some reason, material related to the requested "Crossing" of "Diffusion" with "Computer Simulation;" of "Random Processes" with "Computer Simulation;" and of "Turbulence" with "Computer Simulation" was not included in the 330 abstracts received. Since these topics were our major areas of interest, the results of the survey were of little value.

Judged only from these results, most students would not be willing to pay even \$5.00 for the survey, nor could I sincerely recommend the service to any future employer.

I'm not sure how this difficulty arose, since the above mentioned areas were emphasized both in a telephone conversation with you and in the initial interview with Col. Kelly and another applications engineer.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Theoretical Study of Turbulent Energy Spectrum, etc.

SEARCH NO.: 1416 NO. ABSTRACTS SENT: 113 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Georgia Institute of Tech. DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
none
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

There needs to be a more clear cut subject categorization of the material. I do not think the subject classification of the documents has been worked out well enough. My report included everything included everything in the library. The narrowing down of possible sources of information was not accomplished.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Combusion of Atomized Liquid Propellant
SEARCH NO.: 1418 NO. ABSTRACTS SENT: 193 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: Georgia Institute of Tech. DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 30 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
approximately 65%
3. How many of these pertinent citations had you seen before?
approximately 50%
4. From what source did you secure copies of the documents you wanted?
university library
advisor's personal file
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

Not having completed my entire literature search, I have had some difficulty in assessing the true value of this survey. I think, however, that one point is worth mentioning. During the interview with the man who decided upon which avenues to consider, I found it difficult to determine which key words to use. I believe that this is why many of the abstracts are not relevant to my subject.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Solid Propellant Combustion
SEARCH NO.: 1419 NO. ABSTRACTS SENT: 785 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: Georgia Institute of Tech. DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 30 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
30%
3. How many of these pertinent citations had you seen before?
30%
4. From what source did you secure copies of the documents you wanted?
university library
request from author
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible
enlarge the data file to include chemical concentrates or similar
version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

Would like to see the searches updated semiannually at minimal cost.
Thanks, I appreciate the service.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Vapor Pressure & Critical Relative Humidity of Inorganic Fertilizer Material
SEARCH NO.: 1420 NO. ABSTRACTS SENT: 80 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: Georgia Institute of Tech. DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
5
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Vertical Lifting Devices for Materials Handling
SEARCH NO.: 1427 NO. ABSTRACTS SENT: 77 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: Auburn University DEPARTMENT: Industrial Engineering

1. The computerized information retrieval service offered by NCSTRC

served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

very few

3. How many of these pertinent citations had you seen before?

0

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

engineering in industry

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible

10. Do you care to make any additional comments on this program?

I wrote to NCSTRC upon receipt of the abstracts as I was disappointed in the results. Mr. Potter's reply (20 Nov. 68) was most enlightening and brought forth problems which might be expected with word combination search techniques.

Example: My subject dealt with elevators as devices to lift materials--not aircraft control surfaces.

Some of these difficulties might be removed if the requestor could confer with the applications engineer.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Mathematical Solutions for Heat Transfer Problems

SEARCH NO.: 1428 NO. ABSTRACTS SENT: 348 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Auburn University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC

was my major information resource; its use saved me 50 hours over what I would have spent in a manual library search to obtain the same material.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

60%

3. How many of these pertinent citations had you seen before?

approximately 1%

4. From what source did you secure copies of the documents you wanted?

university library
original source

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
make the applications engineer more accessible
enlarge the data file to include abstracts from international journals,
such as International Journal of Heat and Mass Transfer

10. Do you care to make any additional comments on this program?

This was an excellent survey considering the broad range of topics that were to be considered. It was well worth the expense, considering my limited personal budget and the time saving involved.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Spark-Source Mass Spectrometry
SEARCH NO.: 1429 NO. ABSTRACTS SENT: 42 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: UNC-Chapel Hill DEPARTMENT: Chemistry

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
3 or 4
3. How many of these pertinent citations had you seen before?
had not seen 2
4. From what source did you secure copies of the documents you wanted?
university library
Government Clearinghouse, Washington, D. C.
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
no answer

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

no definite decision yet

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts and unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

Search missed a few papers (Government Research Reports).

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Electrophoresis of Cells and Particles

SEARCH NO.: 1430 NO. ABSTRACTS SENT: 270 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Auburn University DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC

was my major information resource; its use saved me 8 hours over what I would have spent in a manual library search to obtain the same material. provided me with additional background information relevant to my problem which I probably would have spent 6 hours to find. provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

23

3. How many of these pertinent citations had you seen before?

none

4. From what source did you secure copies of the documents you wanted?

university library
Alabama Medical College

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

medical, dental, or psychological research or services

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include medical related abstracts

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Artificial Lung Technology

SEARCH NO.: 1431 NO. ABSTRACTS SENT: 391 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Auburn University DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with completely useless information

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
probably most of them--90%

3. How many of these pertinent citations had you seen before?
no answer

4. From what source did you secure copies of the documents you wanted?
no answer

5. How was the cost of the search met?
personal resources

6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

government R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

Due to the short notice and one time basis of the program for graduate students, I chose a topic, rather hastily, which turned out to be an unsuitable thesis topic. With your facilities available year 'round, I believe they could have been useful to me. As it was, it was probably a waste of time and money. I hope, someday, however, to use this information if possible.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Effects of Social Isolation & Altered Circadian Rhythms on Animals

SEARCH NO.: 1432 NO. ABSTRACTS SENT: 134 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Mississippi DEPARTMENT: Pharmacology

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
12, however none had any pharmacological associations
3. How many of these pertinent citations had you seen before?
7
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
fellowship funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

pharmacological aspects of space investigations

10. Do you care to make any additional comments on this program?

I used this particular service, not as a major information source, but with hope of the possibility of gaining some information which was new, with which I was unfamiliar, and which I would probably be unable to get through any other available source. At the time of initiation of this service, I realized that my major concern was of limited reference in the NASA files, so the area of search was enlarged to include any and all possible cross-references. Even though this service has provided some references on two associated areas of interest, Pineal Gland and Circadian Rhythm, the search was unable to produce any information associating these areas of interest with Pharmacology, I will say that there are some abstracts, outside the areas of interest mentioned above, which I have found of great interest. In the area of social isolation, abstracts dealt with human subjects; whereas I am involved in small animal research.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Structure of Collisionless Plasma Sheath

SEARCH NO.: 1433 NO. ABSTRACTS SENT: 84 NO. DOCUMENTS ORDERED: 20

UNIVERSITY: Mississippi State University DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC

provided me with additional background information relevant to my problem which I probably would have spent 40 hours to find.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

30

3. How many of these pertinent citations had you seen before?

10

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between document request and delivery

10. Do you care to make any additional comments on this program?

If we can try the literature survey twice instead of once, we'll obtain almost necessary literatures we want. In my feeling, average people will obtain in the first survey about 60% of the literature they want; in their second survey they will add another 30 to 35%; turn out to possess more than 90% which they want.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Power Series in Banach Algebra & Measure & Integration

SEARCH NO.: 1434 NO. ABSTRACTS SENT: 300 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Mississippi DEPARTMENT: Mathematics

1. The computerized information retrieval service offered by NCSTRC

provided me with additional background information relevant to my problem which I probably would have spent 24 hours to find.
served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

10

3. How many of these pertinent citations had you seen before?

3

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for the service?

\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Soil Water Content Determined by Electrical Resistivity

SEARCH NO.: 1435 NO. ABSTRACTS SENT: 59 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Mississippi DEPARTMENT: Geology

1. The computerized information retrieval service offered by NCSTRC

was my major information resource; its use saved me 20% of the hours over what I would have spent in a manual library search to obtain the same material.

provided me with additional background information relevant to my problem which I probably would have spent 20% of the hours to find.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

30%

3. How many of these pertinent citations had you seen before?

10%

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery

10. Do you care to make any additional comments on this program?

1. STRC engineer who is making the search should be the man of that field or allied field.
2. The unpublished reports from the government agencies should be made available through the NCSTRC.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Olefins and Free Radical Reactions
SEARCH NO.: 1436 NO. ABSTRACTS SENT: 116 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Mississippi DEPARTMENT: Chemistry

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
2
3. How many of these pertinent citations had you seen before?
1
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
personal resources
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
no answer

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Temperature Dependence of Certain Parameters of Strontium Titanate

SEARCH NO.: 1437 NO. ABSTRACTS SENT: 76 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Mississippi DEPARTMENT: Physics

1. The computerized information retrieval service offered by NCSTRC
served only to confirm that I had already found all the documents really
pertinent to my problem, i.e., it served to give me confidence in the
results of my manual search.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
3
3. How many of these pertinent citations had you seen before?
3
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
fellowship funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Programming of Planning & Scheduling

SEARCH NO.: 1438 NO. ABSTRACTS SENT: 164 NO. DOCUMENTS ORDERED: 32

UNIVERSITY: University of Alabama DEPARTMENT: Industrial Engineering

1. The computerized information retrieval service offered by NCSTRC

was my major information resource; its use saved me 20 hours over what I would have spent in a manual library search to obtain the same material. provided me with additional background information relevant to my problem which I probably would have spent 10 hours to find. provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

about 25

3. How many of these pertinent citations had you seen before?

10

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if they do not have a good library

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
reduce the time between document request and delivery
enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

Hard copies at less cost are needed.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Cost Analysis & Inventory Control

SEARCH NO.: 1439 NO. ABSTRACTS SENT: 240 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Alabama DEPARTMENT: Industrial Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
about 10

3. How many of these pertinent citations had you seen before?
about 3

4. From what source did you secure copies of the documents you wanted?
university library

5. How was the cost of the search met?
research project funds

6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

U. S. Navy Civilian Engineer

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

The program has many good features but I was dismayed to find that the majority of articles were related to the space program and very few were related to other areas.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Production Control and Scheduling
SEARCH NO.: 1440 NO. ABSTRACTS SENT: 281 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Alabama DEPARTMENT: Industrial Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
4
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

manufacturing, sales, or finance

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Textile Technology Digest

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Spectrophotometric Studies of Water Color
SEARCH NO.: 1441 NO. ABSTRACTS SENT: 57 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Alabama DEPARTMENT: Civil Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with completely useless information.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
none
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

industrial waste treatment

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made if pertinent abstracts are available

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Separation of Rare Earth Metal Compounds

SEARCH NO.: 1442 NO. ABSTRACTS SENT: 16 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Mississippi DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
1
3. How many of these pertinent citations had you seen before?
1
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB), Textile Technology Digest

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Digital Television Encoding

SEARCH NO.: 1446 NO. ABSTRACTS SENT: 62 NO. DOCUMENTS ORDERED: 26

UNIVERSITY: N. C. State University DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC
was my major information resource; its use saved me 50 hours over what
I would have spent in a manual library search to obtain the same material.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
39
3. How many of these pertinent citations had you seen before?
12
4. From what source did you secure copies of the documents you wanted?
NCSTRC
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

I regard it overall as extremely worthwhile and helpful.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Light Interaction with Particles
SEARCH NO.: 1447 NO. ABSTRACTS SENT: 237 NO. DOCUMENTS ORDERED: 12
UNIVERSITY: Auburn University DEPARTMENT: Physics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
10
3. How many of these pertinent citations had you seen before?
5
4. From what source did you secure copies of the documents you wanted?
NCSTRC
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

I felt that something was lacking in this particular search, as the bibliography did not contain but 3 published papers out of about 70 I found in my own search that were pertinent to my work. I believe that this is probably due to a lack of communication between myself and the STRC engineer. From the amount of material that I know to have been published in this field, I expected twice as many literature citations.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: The Ranque-Hilsch Vortex Tube Phenomenon

SEARCH NO.: 1451 NO. ABSTRACTS SENT: 146 NO. DOCUMENTS ORDERED: 19

UNIVERSITY: University of Alabama DEPARTMENT: Mechanical Systems Engineering

1. The computerized information retrieval service offered by NCSTRC provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

4

3. How many of these pertinent citations had you seen before?

1

4. From what source did you secure copies of the documents you wanted?

NCSTRC

5. How was the cost of the search met?

fellowship funds

6. How much do you feel most students would be willing to pay personally for the service?

This depends on the student's judgment of the value of the search: an undergraduate working on a term paper wouldn't give a nickel; a Ph. D. candidate working on a dissertation would give \$50-100 if the information could not be readily found elsewhere (I would have).

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery (most desirable for use in the preparation of proposals, etc.)
reduce the time between document request and delivery
I was satisfied with your time response on this search, but certainly your users would want the least possible time.
enlarge the data file to include the supply of hard copy as cheaply (and with more convenience) as local reproduction. I suggest that you maximize the efficiency of this operation (i.e., excellent reproduction, fast delivery). If you want to think really big, consider translating foreign language documents on request (for a nominal fee).

10. Do you care to make any additional comments on this program?

Your service to me was not particularly useful in direct application to my problem, but I judge it to have been very valuable in broadening my awareness and knowledge of peripheral areas. In addition to suggesting directions of future research it has indicated to me specific agencies (possible funding sources) which are interested in the research.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Wave Propagation in Plates & Shells
SEARCH NO.: 1452 NO. ABSTRACTS SENT: 264 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Alabama DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
was my major information resource; its use saved me 80 hours over what
I would have spent in a manual library search to obtain the same material.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
15-20
3. How many of these pertinent citations had you seen before?
3
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery

10. Do you care to make any additional comments on this program?

I was not satisfied with the program because my search title referenced 900 abstracts of which I received only 300.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Topological Dynamics
SEARCH NO.: 1453 NO. ABSTRACTS SENT: 150 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Alabama DEPARTMENT: Mathematics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
two on the subject, none pertinent
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include more complete math files

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Vortex Flow in Circular Ducts & Pipes
SEARCH NO.: 1454 NO. ABSTRACTS SENT: 225 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Mississippi DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
8
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts and more theses and dissertations.

10. Do you care to make any additional comments on this program?

This particular search helped to verify that my particular project is unique and has not been previously studied.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: High Pressure of Alkali Metals

SEARCH NO.: 1455 NO. ABSTRACTS SENT: 19 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: UNC-Chapel Hill DEPARTMENT: Solid State Physics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
10
3. How many of these pertinent citations had you seen before?
7 or 8
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
no answer

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
university research, primarily
government R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include solid state physics, generally

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Hydrodynamic Stability in a Hydrocyclone

SEARCH NO.: 1460 NO. ABSTRACTS SENT: 40 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Mississippi State University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC

provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

ten

3. How many of these pertinent citations had you seen before?

none

4. From what source did you secure copies of the documents you wanted?

not yet obtained

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

no

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Moisture Determination in Fibers
SEARCH NO.: 1461 NO. ABSTRACTS SENT: 48 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: N. C. State University DEPARTMENT: Textile Technology

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
3
3. How many of these pertinent citations had you seen before?
1
4. From what source did you secure copies of the documents you wanted?
university textile library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

textile R & D (product development)

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Textile Technology Digest

10. Do you care to make any additional comments on this program?

The program would have been more valuable to me had I limited the search more when first initiated.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Incineration of Used Insecticide
SEARCH NO.: 1462 NO. ABSTRACTS SENT: 85 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: Mississippi State University DEPARTMENT: Agricultural & Biological Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

seven
3. How many of these pertinent citations had you seen before?

1
4. From what source did you secure copies of the documents you wanted?

university library
5. How was the cost of the search met?

research project funds
6. How much do you feel most students would be willing to pay personally for
the service?

\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

There was little information gained because only a small amount of research has been done on my project.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Tactile Perception

SEARCH NO.: 1463 NO. ABSTRACTS SENT: 162 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: UNC-Greensboro DEPARTMENT: Home Economics

1. The computerized information retrieval service offered by NCSTRC

served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

none

3. How many of these pertinent citations had you seen before?

none

4. From what source did you secure copies of the documents you wanted?

no answer

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Textile Technology Digest

10. Do you care to make any additional comments on this program?

I feel the service would be extremely beneficial and worthwhile if one were doing a study on which there were more sources on their subject matter. For me it was not especially useful, but this was mainly due to the area in which I was investigating and the lack of any pertinent information.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Selection of Grain Dryer Operating Conditions

SEARCH NO.: 1464 NO. ABSTRACTS SENT: 9 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Mississippi State University DEPARTMENT: Agricultural & Biological Eng.

1. The computerized information retrieval service offered by NCSTRC
provided me with completely useless information.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
one
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

Yes, if certain changes are made.

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include USDA Files.

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Management of Products from the Incineration of Wastes

SEARCH NO.: 1465 NO. ABSTRACTS SENT: 95 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Mississippi State University DEPARTMENT: Agricultural & Biological Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

10

3. How many of these pertinent citations had you seen before?

0

4. From what source did you secure copies of the documents you wanted?

university library
intralibrary loan

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for
the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

agricultural or forest resource management

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include USDA file

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Sound Wave Propagation in Boundary Layers - Unsteady Boundary Layers

SEARCH NO.: 1466 NO. ABSTRACTS SENT: 111 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Georgia Institute of Tech. DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 60 hours to find.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
approximately 35

3. How many of these pertinent citations had you seen before?
2

4. From what source did you secure copies of the documents you wanted?
university library

5. How was the cost of the search met?
departmental resources

6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include some of the earlier work in this field.

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Electrons at Metal Dielectric Interface

SEARCH NO.: 1472 NO. ABSTRACTS SENT: 47 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: UNC-Chapel Hill DEPARTMENT: Physics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
2 were marginally related
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10 if the service was really effective, which it does not appear to
be for physics

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching and research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made and if your information bank carried a large number of relevant articles.

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include all journals normally found in a physics library

10. Do you care to make any additional comments on this program?

For my use, the system seems to have two main flaws: 1) the data file does not appear to have many of the type of article a theoretical physicist would be interested in, and 2) the method of searching the data seems very sloppy in that it digs up a lot of superfluous articles and (apparently) misses some of what I wanted.

I am enclosing Mr. Potter's comments on my search.

"This search took almost 9 minutes worth of computer time and produced nothing relating to your major topic. I left everything which was retrieved (only 50) in, but separated the 2 which are applicable from the junk. Hurray for electrons in simple liquids, for without them, we would be batting zero. Please don't show this to anyone as an example of what we can do for them. We really do better than this most of the time."

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Application of Functional Analysis to Control Problems

SEARCH NO.: 1473 NO. ABSTRACTS SENT: 240 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Tennessee DEPARTMENT: Engineering Mechanics

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
75%
3. How many of these pertinent citations had you seen before?
10%
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

This is a very good program and I plan to use it in the future.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Research Management & Ecology

SEARCH NO.: 1475 NO. ABSTRACTS SENT: 173 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Tennessee DEPARTMENT: Regional Planning

1. The computerized information retrieval service offered by NCSTRC

was my major information resource; its use saved me a number of hours over what I would have spent in a manual library search to obtain the same material.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

approximately 30%

3. How many of these pertinent citations had you seen before?

25%

4. From what source did you secure copies of the documents you wanted?

university library
technical publications

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

Planning, economic or political forecasting

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB), management techniques

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Heart Rate--Response to Several Variables

SEARCH NO.: 1477 NO. ABSTRACTS SENT: 293 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Tennessee DEPARTMENT: Psychology

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
25
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Acetylene, Nitrosyl, and Carbonyl Metal Complexes
SEARCH NO.: 1478 NO. ABSTRACTS SENT: 43 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: East Carolina University DEPARTMENT: Chemistry

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 10-15 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
5
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

We thank you very much for your services and hope that you will be of some help for any future searches that we may have.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Study of Flow Field About a Space Vehicle
SEARCH NO.: 1479 NO. ABSTRACTS SENT: 344 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Mississippi DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
none
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10, guarantee

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

1) should publish book which gives complete information about key words and also explains how computer would select papers.
2) let customer do his research topic programming, that way one could reduce misunderstanding in interpretation
3) service should be first

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Separation Axioms in Topology

SEARCH NO.: 1481 NO. ABSTRACTS SENT: 273 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: East Carolina University DEPARTMENT: Mathematics

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

25

3. How many of these pertinent citations had you seen before?

0

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for
the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include more on Topology

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Waste Production Utilization by Algae
SEARCH NO.: 1482 NO. ABSTRACTS SENT: 64 NO. DOCUMENTS ORDERED: 1
UNIVERSITY: East Carolina University DEPARTMENT: Biology

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
served only to confirm that I had already found most of the documents really
pertinent to my problem, i.e., it served to give me confidence in the re-
sults of my manual search.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

all were pertinent to the broad area of research
3. How many of these pertinent citations had you seen before?

5
4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library
5. How was the cost of the search met?

departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

government R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible
enlarge the data file to include unclassified portion of Defense Department
file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Microminiaturization of Bio-Control Systems

SEARCH NO.: 1483 NO. ABSTRACTS SENT: 141 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Mississippi DEPARTMENT: Psychology

1. The computerized information retrieval service offered by NCSTRC

was my major information resource; its use saved me 100 hours over what I would have spent in a manual library search to obtain the same material

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

85%

3. How many of these pertinent citations had you seen before?

40%

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible
enlarge the data file to include unclassified portion of Defense
Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Effects of Insecticides on Containers During Storage

SEARCH NO.: 1484 NO. ABSTRACTS SENT: 36 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Mississippi State University DEPARTMENT: Agricultural & Biological Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
no
3. How many of these pertinent citations had you seen before?
no
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Mathematical Models of Soil-Atmosphere Systems

SEARCH NO.: 1486 NO. ABSTRACTS SENT: 136 NO. DOCUMENTS ORDERED: 9

UNIVERSITY: Mississippi State University DEPARTMENT: Agricultural Engineering

1. The computerized information retrieval service offered by NCSTRC provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?
15
3. How many of these pertinent citations had you seen before?
1
4. From what source did you secure copies of the documents you wanted?
NCSTRC
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

government R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Hormonal Control of Fatty Acid Synthesis in Cows
SEARCH NO.: 1488 NO. ABSTRACTS SENT: 301 NO. DOCUMENTS ORDERED: 3
UNIVERSITY: N. C. State University DEPARTMENT: Food Science

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 50 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
25
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
NCSTRC
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily)
university research, primarily) Combination of the two

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, biological abstracts (example, J. Dairy Science)

10. Do you care to make any additional comments on this program?

The service received from NCSTRC was very fast and efficient. Much effort was made to make the literature search tailored to my specific area of study.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Information Storage of Images

SEARCH NO.: 1491 NO. ABSTRACTS SENT: 48 NO. DOCUMENTS ORDERED: 22

UNIVERSITY: N. C. State University DEPARTMENT: Product Design

1. The computerized information retrieval service offered by NCSTRC

provided me with additional background information relevant to my problem which I probably would have spent 5 hours to find.
provided me with some material I would not have found or used otherwise.
provided only a limited number of citations of interest to me, not enough really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

4 microfiche

3. How many of these pertinent citations had you seen before?

none

4. From what source did you secure copies of the documents you wanted?

NCSTRC

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB), other industrial engineering abstracts

10. Do you care to make any additional comments on this program?

Expanding the data file would be the biggest improvement.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Advanced Educational Techniques

SEARCH NO.: 1493 NO. ABSTRACTS SENT: 117 NO. DOCUMENTS ORDERED: 20

UNIVERSITY: N. C. State University DEPARTMENT: Product Design

1. The computerized information retrieval service offered by NCSTRC

was my major information resource; its use saved me months over what I would have spent in a manual library search to obtain the same material. provided me with additional background information relevant to my problem which I probably would have spent months to find.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

I feel after I synthesize the information, there will be pertinent data extrspolated from the documents.

3. How many of these pertinent citations had you seen before?

none

4. From what source did you secure copies of the documents you wanted?

NCSTRC

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for the service?

It depends on the data involved; if it is the information that can't be had at another system, it is worth \$30.

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
university research, primarily
other design education research

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made
A more comprehensive retrieval dissemination system, not just related to aerospace technology but totality of information.

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include all fields of study--liberal arts, behavioral sciences, biological sciences, design sciences, educational sciences, etc.

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Underwater Communication

SEARCH NO.: 1494 NO. ABSTRACTS SENT: 34 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
8
3. How many of these pertinent citations had you seen before?
4
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$25

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

mineral resource acquisition or processing

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Radio & Optical Observations of Galaxies

SEARCH NO.: 1500 NO. ABSTRACTS SENT: 255 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Florida DEPARTMENT: Astronomy

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I would probably have spent 75 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

 $31/255 = 12\%$
3. How many of these pertinent citations had you seen before?

7
4. From what source did you secure copies of the documents you wanted?

university library
I have not finished searching the library yet
5. How was the cost of the search met?

departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?

\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily or aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

not at this time

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Loading of Spherical Shells

SEARCH NO.: 1501 NO. ABSTRACTS SENT: 283 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Florida DEPARTMENT: Engineering Science and
Mechanics

1. The computerized information retrieval service offered by NCSTRC

served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

8

3. How many of these pertinent citations had you seen before?

5

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Experimental Design - Variance Components

SEARCH NO.: 1504 NO. ABSTRACTS SENT: 66 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Biostatistics-Experimental Design

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
1
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include more statistically related journals

10. Do you care to make any additional comments on this program?

The citation failed to turn up many current and pertinent articles, but this could probably be overcome by referencing the articles in the following list:

J. Americal Statistical Assn.
The American Statistician
Annals of Mathematical Stat.
Annals of Human Genetics
Applied Statistics
Australian J. of Statistics
Bell System Technical J.
Biometrics
Biometrika

Biometrische Zeitschrift
Bull. of Mathematical Statistics
Canadian J. of Mathematics
Canadian Mathematical Bull.
Econometrika
Estadistica
J. of Applied Probability
J. of Combinatorial Theory
Metrika
Metron
Osaka J. of Mathematics

Psychometrika
J. Royal Statistical Society
South African Statistical J.
Sankhya
Statistica Meerlandica
Statistical Theory & Methods Abstracts
J. of the Institute of Statisticians
Technometrics
Technical Translations (US Bureau of Commerce)
Theory of Probability & its Applications
Trabajos de Estadistica
Union of Japanese Scientists & Engineers
British J. of Mathematical & Statistical Psychology
Bull. Calcutta Statistical Assn.
Executive Science Institute Abstracts
J. Indian Soc. of Agricultural Statistics
International Statistical Institute Bull.
National Bureau of Standards (Research J. Series)

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Stability of Periodic Solutions in Nonlinear Systems
SEARCH NO.: 1505 NO. ABSTRACTS SENT: 103 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Engineering Mechanics

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
2
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

Comments by faculty advisor.

The survey was originally intended for one of my students who does not yet know with certainty the topic for his research work. Another student has used the survey for a limited time and it is expected that he will consult a number of additional references not yet reported at this time.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Pressure Measurement in a Viscoseal Annulus

SEARCH NO.: 1506 NO. ABSTRACTS SENT: 69 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Tennessee DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
about 1/4
3. How many of these pertinent citations had you seen before?
1/2
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

military service

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

streamline the paperwork

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Job Motivation

SEARCH NO.: 1508 NO. ABSTRACTS SENT: 110 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Industrial Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
1
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Thermodynamics of Polymer-Solvent Systems

SEARCH NO.: 1510 NO. ABSTRACTS SENT: 167 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC provided only a limited number of citations of interest to me, not enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?
no answer
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates of similar version of Chemical Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

Circumstances immediately following receipt of your search have forced me to depart from my original area of interest. I think that the following observation may be of interest to you. The major works in the area covered by this search were published in the open literature in the last 4-5 years (Transactions of the Faraday Society and Journal of the American Chemical Society). This work was carried out at Stanford University under a U.S. Air Force long-term contract. I was very disappointed and concerned that these references did not show up in your search.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Single Crystal Ferroelectrics

SEARCH NO.: 1511 NO. ABSTRACTS SENT: 112 NO. DOCUMENTS ORDERED: 4

UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Metals & Ceramics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

10

3. How many of these pertinent citations had you seen before?

5

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for
the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery

10. Do you care to make any additional comments on this program?

I liked this service very much.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Nonlinear Theory of Plates & Shells

SEARCH NO.: 1512 NO. ABSTRACTS SENT: 105 NO. DOCUMENTS ORDERED: 3

UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Engineering Mechanics

1. The computerized information retrieval service offered by NCSTRC

served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

12

3. How many of these pertinent citations had you seen before?

2

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Capillary Fluid Flow
SEARCH NO.: 1513 NO. ABSTRACTS SENT: 62 NO. DOCUMENTS ORDERED: 4
UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
12
3. How many of these pertinent citations had you seen before?
5
4. From what source did you secure copies of the documents you wanted?
NCSTRC
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible

10. Do you care to make any additional comments on this program?

One has to search literature to specify and explain the problem to the STRC engineer, after which some of the search made by the computer becomes redundant. At present, I have no idea for getting around this problem, but there must be some way like using key words.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Finite Elements Analysis of Stiffened Plates

SEARCH NO.: 1514 NO. ABSTRACTS SENT: 186 NO. DOCUMENTS ORDERED: 1

UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Civil Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 10 hours to find.
provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

two (sixteen related)

3. How many of these pertinent citations had you seen before?

none

4. From what source did you secure copies of the documents you wanted?

NCSTRC
Clearing House, Springfield, Va.

5. How was the cost of the search met?
research project funds
personal resources
departmental resources

6. How much do you feel most students would be willing to pay personally for
the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Geodex - Structural Engineering

10. Do you care to make any additional comments on this program?

I would like to express my appreciation and thank Mr. "Bob" T.R. Potter for his effort and assistance.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Cracking of Reinforced Materials

SEARCH NO.: 1515 NO. ABSTRACTS SENT: 69 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Civil Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

20
3. How many of these pertinent citations had you seen before?

8
4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library
5. How was the cost of the search met?

departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible

10. Do you care to make any additional comments on this program?

Avoid duplication. The same articles are being published in different journals and are included more than once in your survey report.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Study of a Viscoelastic Fluid in an Accelerative Entrance Flow

SEARCH NO.: 1516 NO. ABSTRACTS SENT: 282 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Tennessee DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

approximately 5

3. How many of these pertinent citations had you seen before?

approximately 3

4. From what source did you secure copies of the documents you wanted?

university library
original author

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for
the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
enlarge the data file to include chemical concentrates or similar version
of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Magnesium Metabolism
SEARCH NO.: 1517 NO. ABSTRACTS SENT: 147 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: UNC-Greensboro DEPARTMENT: Home Economics

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
no answer
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Biochemistry Abstracts, Nutrition Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Plasmas
SEARCH NO.: 1518 NO. ABSTRACTS SENT: 243 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Tennessee DEPARTMENT: Plasma Physics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
no answer
3. How many of these pertinent citations had you seen before?
5-6
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
less than \$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

government R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

no

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Clothing in Psychotherapy
SEARCH NO.: 1519 NO. ABSTRACTS SENT: 318 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: UNC-Greensboro DEPARTMENT: Home Economics

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent a number of hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
approximately 50
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
university library
interlibrary loans from other universities, city and county libraries
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Textile Technology Digest, other publications of textile industry such as Textile World, American Dyestuff Reporter as well as journals of the social sciences as Journal of Personality, Journal of Abnormal and Social Psychology, Mental Hygiene

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Waveform Analysis and Digitized Mapping of Geographic Patterns

SEARCH NO.: 1520 NO. ABSTRACTS SENT: 204 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Tennessee DEPARTMENT: Geography

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
approximately 40

3. How many of these pertinent citations had you seen before?
approximately 10

4. From what source did you secure copies of the documents you wanted?
have not yet ordered

5. How was the cost of the search met?
research project funds

6. How much do you feel most students would be willing to pay personally for
the service?
\$30 - for most subject areas most students would gladly pay \$30 for the
time it would save them.

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Effect of Color on Human Behavior

SEARCH NO.: 1524 NO. ABSTRACTS SENT: 88 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: UNC-Greensboro DEPARTMENT: Home Economics

1. The computerized information retrieval service offered by NCSTRC

provided me with additional background information relevant to my problem which I probably would have spent many hours to find.

provided me with valuable material I would not have found or used otherwise.

provided only a limited number of citations of interest to me, not enough really to make the service worthwhile due to my limited background in Physics and chemistry.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

6 - possibly I will use more when problem is more clearly defined

3. How many of these pertinent citations had you seen before?

2

4. From what source did you secure copies of the documents you wanted?

university library

Cone Mills Technical Library

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for the service?

\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Textile Technology Digest

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Adaptive Control Modeling

SEARCH NO.: 1525 NO. ABSTRACTS SENT: 120 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
10 - 40
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
NCSTRC
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include IEEE abstract service

10. Do you care to make any additional comments on this program?

I was very pleased with the service.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Measuring the Effect of Lighting on Work Performance

SEARCH NO.: 1526 NO. ABSTRACTS SENT: 100 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: UNC-Greensboro DEPARTMENT: Home Economics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

few---too technical or not related enough to pursue

3. How many of these pertinent citations had you seen before?

none

4. From what source did you secure copies of the documents you wanted?

university library
electrical engineers in Greensboro

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for
the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

small college teaching or high school

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include more sociological or human centered information

10. Do you care to make any additional comments on this program?

Good program, wish that I had an area it could have benefited more.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Wear in Carpets
SEARCH NO.: 1527 NO. ABSTRACTS SENT: 75 NO. DOCUMENTS ORDERED: 5
UNIVERSITY: UNC-Greensboro DEPARTMENT: Home Economics

1. The computerized information retrieval service offered by NCSTRC

served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

1/2

3. How many of these pertinent citations had you seen before?

most of them

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for the service?

no answer

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
industry, Fiber producing company

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Textile Technology Digest

10. Do you care to make any additional comments on this program?

I received excellent and prompt service.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Underwater Environment

SEARCH NO.: 1528 NO. ABSTRACTS SENT: 177 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Product Design

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
approximately 1/4 of return
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
NCSTRC - when secured
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10, \$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
military service
ocean systems design

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB), Commercial Fisheries Abstracts

10. Do you care to make any additional comments on this program?

I have not yet ordered hard copies, but as yet my only problem with the system is some hesitation on the amount of money it would take me to get hard copy of the amount of information I would like to secure. I must say I see no reasonable way out of this. In all, I was very impressed with the service.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Child Patterns in New Group Situations
SEARCH NO.: 1529 NO. ABSTRACTS SENT: 179 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: UNC-Greensboro DEPARTMENT: Home Economics

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
10
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include current research on human behavior

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Measurement of Consumer Preference in Clothing

SEARCH NO.: 1530 NO. ABSTRACTS SENT: 179 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: UNC-Greensboro DEPARTMENT: Home Economics

1. The computerized information retrieval service offered by NCSTRC
provided me with completely useless information
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
none
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

industry - clothing

8. Would you recommend to your future employer the use of information retrieval services such as this?

Yes, if certain changes are made depending on information needed.

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

I was interested to receive and study my search, which although unrelated to my current study proved nevertheless to be of interest. Because I had not known of your organization, I now feel better informed to have become acquainted with your services. Although I was unable to use your search, I'm certain it must be of value to others whose research is more technical in nature.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: The Transformation of Biological Cells that Produce Tumors
SEARCH NO.: 1533 NO. ABSTRACTS SENT: 180 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: N. C. State University DEPARTMENT: Microbiology

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
about 10
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
I think this depends largely on the field that the student is pursuing.

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

medical, dental, or psychological research or services

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, any biological journal

10. Do you care to make any additional comments on this program?

I appreciate the service and what is trying to be accomplished with this service. With the future growth and enlargement, I am sure that the service will become more and more helpful to people in microbiology and virology. I look forward to your acquisition of the other journals.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Two-Phase Flow

SEARCH NO.: 1534 NO. ABSTRACTS SENT: 152 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 50* hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
5
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
university library*
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

*my research will not be conducted until the fall and the above answers
are simply estimates.

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

military service

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

Please note that this questionnaire is somewhat premature in my case since I have yet to conduct my research. If this same questionnaire were sent to me in October or November, I could complete it with greater accuracy and would be happy to do so.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Mechanics on Wear of Flat Mating Surfaces

SEARCH NO.: 1536 NO. ABSTRACTS SENT: 125 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Tennessee DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC

served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

3-4

3. How many of these pertinent citations had you seen before?

0

4. From what source did you secure copies of the documents you wanted?

NCSTRC

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

military service

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Electrostatic Step-Function Excitation

SEARCH NO.: 1537 NO. ABSTRACTS SENT: 206 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Tennessee DEPARTMENT: Physics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
5
3. How many of these pertinent citations had you seen before?
4
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

military service

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

The field of plasma physics, in particular the terminology has not crystalized to such an extent that a computerize literature search seems feasible.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Adsorption Involving Heat & Mass Transfer

SEARCH NO.: 1538 NO. ABSTRACTS SENT: 92 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Tennessee DEPARTMENT: Chemical & Metallurgical Engr.

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
60-70%
3. How many of these pertinent citations had you seen before?
40%
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

We were pleased with our search.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Plasma Generation by Electrodeless Discharge

SEARCH NO.: 1539 NO. ABSTRACTS SENT: 135 NO. DOCUMENTS ORDERED: 20

UNIVERSITY: University of Florida DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 20 hours to find.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
100

3. How many of these pertinent citations had you seen before?
no answer

4. From what source did you secure copies of the documents you wanted?
NCSTRC
university library

5. How was the cost of the search met?
departmental resources

6. How much do you feel most students would be willing to pay personally for
the service?
\$25

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Heat & Mass Transfer in Free Molecular Flow

SEARCH NO.: 1540 NO. ABSTRACTS SENT: 280 NO. DOCUMENTS ORDERED: 5

UNIVERSITY: University of Florida DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

30

3. How many of these pertinent citations had you seen before?

8

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for
the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

Abstract delivery time was satisfactory. I have not as yet ordered documents, therefore, cannot comment on document delivery time.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Ground Water - Yield & Purification

SEARCH NO.: 1542 NO. ABSTRACTS SENT: 141 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Tennessee DEPARTMENT: Agricultural Engineering

1. The computerized information retrieval service offered by NCSTRC

served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

5

3. How many of these pertinent citations had you seen before?

about 3

4. From what source did you secure copies of the documents you wanted?

NCSTRC

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include less aerospace abstracts and more information regarding other technical fields.

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Flow of High Pressure Gases
SEARCH NO.: 1544 NO. ABSTRACTS SENT: 49 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Florida DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
10
3. How many of these pertinent citations had you seen before?
3
4. From what source did you secure copies of the documents you wanted?
have not yet secured copies of all documents to be received in detail.
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

government R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

no, DDC service already in use

9. What could be done to make the service more valuable to you personally?

adequate as is

10. Do you care to make any additional comments on this program?

I believe the service offered should prove beneficial to most researchers making use of the program. I don't know what the procedures would be if a search was requested entirely by mail, but I assume that substantial paperwork and/or telephone use would be necessary. This would be the only obvious drawback to your program.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Light Scattering by Natural or Artificial Aerosols

SEARCH NO.: 1545 NO. ABSTRACTS SENT: 134 NO. DOCUMENTS ORDERED: 57

UNIVERSITY: University of Florida DEPARTMENT: Physics & Astronomy

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 50 hours to find.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

72

3. How many of these pertinent citations had you seen before?

14

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library
research library of faculty advisor

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for
the service?

\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Applied Science & Technology Index

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Two-Phase Heat Transfer

SEARCH NO.: 1546 NO. ABSTRACTS SENT: 253 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC

provided me with additional background information relevant to my problem which I probably would have spent 10-20 hours to find.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

20%

3. How many of these pertinent citations had you seen before?

hardly any

4. From what source did you secure copies of the documents you wanted?

university library
DDC

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
university research, primarily
non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

I am just beginning my research and this provided a good starting point.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Hemoglobin-Oxygen Reaction
SEARCH NO.: 1549 NO. ABSTRACTS SENT: 259 NO. DOCUMENTS ORDERED: 14
UNIVERSITY: University of Florida DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 30 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
23 references were of great value to my study
3. How many of these pertinent citations had you seen before?
5
4. From what source did you secure copies of the documents you wanted?
NCSTRC
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching and research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB), Textile Technology Digest, Commercial Fisheries Abstracts, etc. The more information sources you gather the better.

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Turbulent Heat & Mass Transfer Between Parallel Plates & Tubes

SEARCH NO.: 1550 NO. ABSTRACTS SENT: 194 NO. DOCUMENTS ORDERED: 17

UNIVERSITY: University of Florida DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC

provided me with additional background information relevant to my problem which I probably would have spent 60 hours to find.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

160

3. How many of these pertinent citations had you seen before?

90

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library
reprints

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB), Textile Technology Digest, AEC

10. Do you care to make any additional comments on this program?

An excellent program, which should be continued and made known to more researchers. A special student rate should be implemented, so that a student could look into one or more areas of research and possibly reach some conclusions about possible researches; also, he would complete his chosen research search, thus.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Noise Spectra of a Solid Semiconductor

SEARCH NO.: 1554 NO. ABSTRACTS SENT: 244 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Florida DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
13
3. How many of these pertinent citations had you seen before?
2
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

I feel that the present available dictionary of key words is not sufficiently comprehensive to encompass some of the very specific fields within Elec. Eng.

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible

10. Do you care to make any additional comments on this program?

The selection of key words must be improved.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Photo-Electric Photometry & Spectroscopy of Variable Stars

SEARCH NO.: 1555 NO. ABSTRACTS SENT: 216 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Florida DEPARTMENT: Astronomy and Physics

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 10-12 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
24
3. How many of these pertinent citations had you seen before?
15
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Solids Materials Joints

SEARCH NO.: 1556 NO. ABSTRACTS SENT: 331 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Florida DEPARTMENT: Metallurgy

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 40 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
30
3. How many of these pertinent citations had you seen before?
20
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Microwave Propagation in Heterogeneous Dielectrics

SEARCH NO.: 1557 NO. ABSTRACTS SENT: 130 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
27
3. How many of these pertinent citations had you seen before?
15
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Interaction and Functions of Organisms in Ecological Systems

SEARCH NO.: 1560 NO. ABSTRACTS SENT: 126 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Duke University DEPARTMENT: Physiology

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
40
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain extensions are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Commercial Fisheries Abstracts

10. Do you care to make any additional comments on this program?

Due to a series of unfortunate events, I will have to continue this study after a lapse of 2 years. At which time I will consider another search for updated articles in the search area. The citations retrieved were useful primarily as sources not easily available on the university campus.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Enzymatic Mechanism of Urokinase

SEARCH NO.: 1561 NO. ABSTRACTS SENT: 171 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Duke University DEPARTMENT: Immunology

1. The computerized information retrieval service offered by NCSTRC

provided only a limited number of citations of interest to me, not enough really to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

5-10

3. How many of these pertinent citations had you seen before?

none

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

medical, dental, or psychological research or services

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts and more biochemically-medically oriented sources.

10. Do you care to make any additional comments on this program?

I appreciated the opportunity to use the service and found the abstracts very interesting. However, most of my sources of information--or others containing pertinent information--are evidently not included in your file. I have since requested another search on a different biochemical compound which was not even listed in your dictionary. The file should definitely be enlarged for this service to be of benefit to me personally or to anyone working in the area of coagulation or fibrinolysis.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Economic Development - International
SEARCH NO.: 1567 NO. ABSTRACTS SENT: 303 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Virginia DEPARTMENT: Economics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
directly: 27
moderately: 47
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if in a more closely related field

9. What could be done to make the service more valuable to you personally?

more statistical material on international economics should be added to the file

10. Do you care to make any additional comments on this program?

This search seems to be more useful to the natural scientist than the social scientist. Thus, I believe I am a poor judge of the value of this program.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Unsteady Aerodynamics of Bodies & Wings
SEARCH NO.: 1568 NO. ABSTRACTS SENT: 149 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Virginia DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise
served only to confirm that I had already found all the documents really
pertinent to my problem, i.e., it served to give me confidence in the results
of my manual search.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
60%
3. How many of these pertinent citations had you seen before?
most of them
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
university research, primarily
government R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible
enlarge the data file to include unclassified portion of Defense Department
file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Low Energy Electron Diffraction Studies

SEARCH NO.: 1569 NO. ABSTRACTS SENT: 36 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Virginia DEPARTMENT: Material Science

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
31.5 %

3. How many of these pertinent citations had you seen before?
about half

4. From what source did you secure copies of the documents you wanted?
university library

5. How was the cost of the search met?
departmental resources

6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R&D
non-aerospace industrial R&D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

Instruct users group to be able to set up and construct their own access codes and key identifiers in their own way. It is my opinion that users actually in contact with the work being surveyed, in consultation with others of their group, could produce a higher hit percentage than supplied in this search. 31.5% seems to me a small percentage for the methods employed.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Dynamic Plasticity

SEARCH NO.: 1570 NO. ABSTRACTS SENT: 147 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Florida DEPARTMENT: Engineering Sciences and
Mechanics

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
15
3. How many of these pertinent citations had you seen before?
10
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
personal resources
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include ISI file

10. Do you care to make any additional comments on this program?

The time delay between request and receipt of data is too long. Also need to include more published papers in listing (similar to ISI file). Update costs are prohibitive for student use. Graduate support for program should come not from personal sources but rather from NSF or other non-NASA agencies.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Nuclear Reactions

SEARCH NO.: 1571 NO. ABSTRACTS SENT: 22 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Virginia DEPARTMENT: Physics

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
2
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Nuclear Science Abstracts and unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

I feel that the program could be improved greatly with the inclusion of Nuclear Science Abstracts. Considering the returns for the time invested it would have been much more worthwhile for me to have spent my time searching the Nuclear Science Abstracts.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: U.V. Spectra & Electronic Structure of Metal-Amino Acid Complexes

SEARCH NO.: 1572 NO. ABSTRACTS SENT: 44 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Virginia DEPARTMENT: Chemistry

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
about 8
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily
aerospace-related industrial R & D
non-aerospace-related industrial R & D
government R & D
unknown

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
make the applications engineer more accessible
streamline the paperwork
enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB), and Russian and Iron Curtain journals.

10. Do you care to make any additional comments on this program?

It could very well be worth \$15 or more to be able to include in the file Chem. Abstracts or at least say major journals since 1925 for Physics and Physical Chemistry and say back to 1850 for Organic Chemistry; of course, I realize the enormity of such a search, but then I believe at least 75% of all scientific literature has been written since 1900 anyway. Why not try adding the last ten years or at least back to the last Chem. Abstracts decennial index (you could even try to work out a cooperative deal with Chem. Abstracts.) I have always found the decennial indices easy to use, but when you get past the latest one you really bog down when you have to search manually through each monthly Chem. Abstract.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Oxide & Oxidation of Tantalum
SEARCH NO.: 1573 NO. ABSTRACTS SENT: 160 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Virginia DEPARTMENT: Materials Science

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
12
3. How many of these pertinent citations had you seen before?
10
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

make the applications engineer more accessible

10. Do you care to make any additional comments on this program?

Basically most of the reports I received were of a manufacturing & process oriented nature & not really suitable for the basic research nature of my work. The NCSTR was the least manufacturing oriented as versus the NASA or DDC reports but the few additional references turned up (for my specific problem) would not make the search seem worthwhile. On the other hand for someone either in the manufacturing line or not primarily concerned with basic research but with a specific problem to be solved, this search would prove very valuable & the availability of the xeroxed abstracts would save much time.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Transition Probability In Isotopes of Nickel, Magnesium & Neon

SEARCH NO.: 1574 NO. ABSTRACTS SENT: 91 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Virginia DEPARTMENT: Physics

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
10
3. How many of these pertinent citations had you seen before?
1
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include Nuclear Science Abstracts

10. Do you care to make any additional comments on this program?

On the basis of the work that I have done with this report so far, I find that the majority of the papers which seemed pertinent were theoretical articles, whereas I am primarily interested in experimental reports; hence, I have found the report to be of limited usefulness.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Nuclear Weapons - Public Policy-Strategy & Tactics-Technology

SEARCH NO.: 1575 NO. ABSTRACTS SENT: 63 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Virginia DEPARTMENT: Law

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me, not really
enough to make the service worthwhile.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

15

3. How many of these pertinent citations had you seen before?

0

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for
the service?

\$20

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

law

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in Unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Magnetic Properties of Molecules - Theory & Experiment
SEARCH NO.: 1576 NO. ABSTRACTS SENT: 155 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Virginia DEPARTMENT: Chemistry

1. The computerized information retrieval service offered by NCSTRC served only to confirm that I had already found most of the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.
2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?
approximately 20-30
3. How many of these pertinent citations had you seen before?
approximately 20
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

It appears to me that the cross-referencing that the STRC engineer and I agreed upon was ignored in the search. The majority of the theoretical papers found were purely Quantum Mechanical in nature with no information on Magnetic Properties at all. Furthermore, I had already seen the majority of these type papers. Some of the experimental references found were fairly good, but there are many that are totally irrelevant.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Magnus Force on Bodies of Revolution
SEARCH NO.: 1577 NO. ABSTRACTS SENT: 66 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Virginia DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC

This search was a fairly complete list of documents, most of which (17 of 20) were known to me. It left out several documents (about 4) as did the NASA search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

20

3. How many of these pertinent citations had you seen before?

17

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$5 - \$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching and research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery (This search took about 6 weeks which I understand is not the normal procedure. Two weeks would be reasonable.)

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

In general this was a representative literature search. It did not offer much more than a NASA search and hence I feel its value would be primarily as a check procedure to try and locate perhaps a few extra documents, as could the NASA search do as a check on the NC one.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Burn Injuries

SEARCH NO.: 1579 NO. ABSTRACTS SENT: 33 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Virginia Polytechnic Inst. DEPARTMENT: Industrial Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would not have searched.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
2
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
departmental resource
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

Due to the topic I was investigating, I expected very little information and received very little. The search was still worthwhile.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Optical Monitoring of Radio Sources

SEARCH NO.: 1580 NO. ABSTRACTS SENT: 92 NO. DOCUMENTS ORDERED: 5

UNIVERSITY: University of Florida DEPARTMENT: Physics & Astronomy

1. The computerized information retrieval service offered by NCSTRC

provided me with valuable material I would not have found or used otherwise.
provided only a limited number of citations of interest to me, not enough
really to make the service worthwhile.

provided me with additional background information relevant to my problem
which I probably would have spent a number of hours to find.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

8

3. How many of these pertinent citations had you seen before?

2

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for
the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include more astronomical and astrophysical journals

10. Do you care to make any additional comments on this program?

I feel that this search program would be very valuable in many areas of study, but in my own area I found the data files very limited.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: The Unsteady Motion of a Liquid Drop in Liquid Suspension

SEARCH NO.: 1581 NO. ABSTRACTS SENT: 141 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: University of Florida DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 30 hours to find.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

18

3. How many of these pertinent citations had you seen before?

6

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for
the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
enlarge the data file to include chemical concentrates or similar
version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

It will be of great value to include papers starting around 1850 in the library.
Provide for the translation of foreign papers.
Put some numbers to identify abstract's pages.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Non-Fickian Transport of Organic Vapors in Glassy Polymers

SEARCH NO.: 1582 NO. ABSTRACTS SENT: 42 NO. DOCUMENTS ORDERED: 3

UNIVERSITY: N. C. State University DEPARTMENT: Polymer Science

1. The computerized information retrieval service offered by NCSTRC

served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

8

3. How many of these pertinent citations had you seen before?

5

4. From what source did you secure copies of the documents you wanted?

NCSTRC

5. How was the cost of the search met?

fellowship funds

6. How much do you feel most students would be willing to pay personally for the service?

\$10, this would be quite arbitrary and would depend a great deal on the likelihood of results.

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

The program is useful at present but would be of much greater value to non-NASA related areas if a broaden base or source of abstracts were used.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Raindrop - Deformation & Shattering
SEARCH NO.: 1583 NO. ABSTRACTS SENT: 45 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: University of Florida DEPARTMENT: Aerospace Engineering

1. The computerized information retrieval service offered by NCSTRC

served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

3

3. How many of these pertinent citations had you seen before?

1

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

departmental resources

6. How much do you feel most students would be willing to pay personally for the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include time period covered by the abstracts which does not go back far enough. Hence, if greater realization is to be achieved particularly for fields of research which are currently not being vigorously worked at present, the bank should include abstracts which cover a great time period.

10. Do you care to make any additional comments on this program?

Use of this service by an industrial firm (aerospace) would be significantly enhanced if unclassified abstracts of classified documents were reduced.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Milk
SEARCH NO.: 1586 NO. ABSTRACTS SENT: 56 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: N. C. State University DEPARTMENT: Food Science

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
about 1/4
3. How many of these pertinent citations had you seen before?
about 3/10
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Production of Organic Matter by Trees
SEARCH NO.: 1588 NO. ABSTRACTS SENT: 69 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: N. C. State University DEPARTMENT: Botany

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent a number of hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
10
3. How many of these pertinent citations had you seen before?
4
4. From what source did you secure copies of the documents you wanted?
university library
department collections
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include the major journals from biological science, U.S.D.A. publications and A.E.C. publications.

10. Do you care to make any additional comments on this program?

I feel that confining your material to that primarily of interest to NASA, cuts down on the amount of technical material needed by the majority of graduate students (Zoology, Botany, Chemistry, Physics, etc.) at the nearby universities.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Fourier Filtering in Machining Quality Control

SEARCH NO.: 1589 NO. ABSTRACTS SENT: 57 NO. DOCUMENTS ORDERED: 1

UNIVERSITY: University of Tennessee DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 8 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
90%
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
NCSTRC
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

no answer

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Emulsion Stability & Conductivity

SEARCH NO.: 1592 NO. ABSTRACTS SENT: 63 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Food Science

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
5
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
none yet
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D
military service

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Commercial Fisheries Abstracts, other food technology and food science abstracts

10. Do you care to make any additional comments on this program?

People were pleasant, my topic was not closely related to the type of papers abstracted.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Physical Properties of Sea Water
SEARCH NO.: 1593 NO. ABSTRACTS SENT: 16 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: UNC-Chapel Hill DEPARTMENT: Geology - Petrology

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise
and eliminated expensive computer manipulation.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
one
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
Naval Ordnance Laboratory (author)
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$30

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB), Commercial Fisheries Abstracts.

10. Do you care to make any additional comments on this program?

It proved to be an excellent service and well worth the modest cost.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Effect of Detergents on Bacteria

SEARCH NO.: 1594 NO. ABSTRACTS SENT: 35 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: East Carolina University DEPARTMENT: Biology

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
10
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
university library
interlibrary loan
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

medical, dental, or psychological research or services

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Cobalt 60 Radiation Induced Emulsion & Suspension Polymerization

SEARCH NO.: 1595 NO. ABSTRACTS SENT: 38 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Chemical Engineering

1. The computerized information retrieval service offered by NCSTRC

served only to confirm that I had already found all the documents really pertinent to my problem, i.e., it served to give me confidence in the results of my manual search.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

2

3. How many of these pertinent citations had you seen before?

2

4. From what source did you secure copies of the documents you wanted?

university library

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Closed Loop Man Machine Systems
SEARCH NO.: 1605 NO. ABSTRACTS SENT: 94 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: UNC-Chapel Hill DEPARTMENT: Information Science

1. The computerized information retrieval service offered by NCSTRC
was my major information resource; its use saved me 40 hours over what
I would have spent in a manual library search to obtain the same
material.
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

30
3. How many of these pertinent citations had you seen before?

4
4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library
5. How was the cost of the search met?

personal resources
6. How much do you feel most students would be willing to pay personally for
the service?

\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Vibration of Piezoelectric Elements

SEARCH NO.: 1606 NO. ABSTRACTS SENT: 102 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
20

3. How many of these pertinent citations had you seen before?
0

4. From what source did you secure copies of the documents you wanted?
university library

5. How was the cost of the search met?
research project funds

6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery

10. Do you care to make any additional comments on this program?

Search in most cases can be very useful and after all in some case it only takes one hit to get the ball rolling.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Fruits and Sugars

SEARCH NO.: 1610 NO. ABSTRACTS SENT: 68 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Horticulture

1. The computerized information retrieval service offered by NCSTRC
served only to confirm that I had already found all the documents really
pertinent to my problem, i.e., it served to give me confidence in the
results of my manual search.
provided only a limited number of citations of interest to me, not
enough really to make the service worthwhile.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
1-2%
3. How many of these pertinent citations had you seen before?
all
4. From what source did you secure copies of the documents you wanted?
university library
files of major professor
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

Yes, if certain changes are made e.g., expansion of biological sciences resources.

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, other biological abstracts

10. Do you care to make any additional comments on this program?

We weren't really disappointed with the results because of the nature of your files---NASA!

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Glutathione Metabolism in Escherichia Coli
SEARCH NO.: 1614 NO. ABSTRACTS SENT: 138 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: N. C. State University DEPARTMENT: Food Science

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
provided only a limited number of citations of interest to me, not enough really to make the service worthwhile.
provided me with completely useless information.
2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?
none
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
did not request any documents
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

Yes, if certain changes are made to include more information on biologically oriented sciences.

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include biology, biochemistry, food science

10. Do you care to make any additional comments on this program?

I requested the search as an experiment to see what NCSTRC had in the way of biological, especially microbiological data. I was disappointed that the data file was quite small and most of the citations could not be used. The only benefit I got was being exposed to some aerospace technology and biology abstracts which I did not know existed.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Gyromagnetism of Free Atoms

SEARCH NO.: 1615 NO. ABSTRACTS SENT: 68 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Duke University DEPARTMENT: Physics

1. The computerized information retrieval service offered by NCSTRC

This was only a trial investigation on our part. It was done in order to see if it could turn up more than what we had already done ourselves. The search did turn up a few useful references.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

26

3. How many of these pertinent citations had you seen before?

Three

4. From what source did you secure copies of the documents you wanted?

Have not tried

5. How was the cost of the search met?

Research project funds

6. How much do you feel most students would be willing to pay personally for the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

Government Research & Development

8. Would you recommend to your future employer the use of information retrieval services such as this?

Yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

Make the applications engineer more accessible

Enlarge the data file to include physics abstracts

10. Do you care to make any additional comments on this program?

It seems to me that the subsidy paid by NASA is much too large.
don't understand why this procedure should cost so much.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Creep Buckling

SEARCH NO.: 1617 NO. ABSTRACTS SENT: 115 NO. DOCUMENTS ORDERED: 3

UNIVERSITY: Duke University DEPARTMENT: Civil Engineering

1. The computerized information retrieval service offered by NCSTRC

provided me with additional background information relevant to my problem which I probably would have spent 100 hours to find.

2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?

50

3. How many of these pertinent citations had you seen before?

20

4. From what source did you secure copies of the documents you wanted?

NCSTRC
university library
Clearinghouse

5. How was the cost of the search met?

personal resources

6. How much do you feel most students would be willing to pay personally for the service?

\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily
aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstracts' delivery
reduce the time between document request and delivery

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Shakedown Theory in Solid Materials
SEARCH NO.: 1618 NO. ABSTRACTS SENT: 165 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: N. C. State University DEPARTMENT: Mineral Industries

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my
problem which I probably would have spent 40 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
about 50%
3. How many of these pertinent citations had you seen before?
about a quarter of them
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Nucleate Boiling

SEARCH NO.: 1627 NO. ABSTRACTS SENT: 218 NO. DOCUMENTS ORDERED: 3

UNIVERSITY: Duke University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
4
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
NCSTRC
University library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between document request and delivery

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Hand Tool Design
SEARCH NO.: 1629 NO. ABSTRACTS SENT: 24 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: N. C. State University DEPARTMENT: Product Design

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 7 hours to find.
provided me with valuable material I would not have found or used
otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
6
3. How many of these pertinent citations had you seen before?
0
4. From what source did you secure copies of the documents you wanted?
NCSTRC
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB), other professional society journals

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Systems Identification
SEARCH NO.: 1633 NO. ABSTRACTS SENT: 222 NO. DOCUMENTS ORDERED: 0
UNIVERSITY: Clemson University DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent 5 hours to find.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
25
3. How many of these pertinent citations had you seen before?
3
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
enlarge the data file to include Engineering Index

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Air Suspension in Tubes

SEARCH NO.: 1650 NO. ABSTRACTS SENT: 324 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Duke University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC

provided me with additional background information relevant to my problem
which I probably would have spent 5 hours to find

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?

11

3. How many of these pertinent citations had you seen before?

3

4. From what source did you secure copies of the documents you wanted?

university library
Clearinghouse

5. How was the cost of the search met?

research project funds

6. How much do you feel most students would be willing to pay personally for
the service?

\$5

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

reduce the time between search request and abstract delivery
enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Numerical Methods for Cylinders

SEARCH NO.: 1654 NO. ABSTRACTS SENT: 114 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC provided me with additional background information relevant to my problem which I probably would have spent 4 hours to find
2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?
4
3. How many of these pertinent citations had you seen before?
none
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

non-aerospace industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Vibration of Plates

SEARCH NO.: 1657 NO. ABSTRACTS SENT: 159 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC provided me with additional background information relevant to my problem which I probably would have spent 8 hours to find
2. In your opinion, how many of the abstracts or citations you received were pertinent to your question?
7
3. How many of these pertinent citations had you seen before?
1
4. From what source did you secure copies of the documents you wanted?
university library
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

government R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB) and a current survey of materials found in popular technical journals such as the Journal of the Acoustical Society of America, the Journal of Applied Mechanics, and others with special regard to dynamic and static mechanics

10. Do you care to make any additional comments on this program?

If enlarged to include a general periodical literature survey in the basic sciences, the search would prove invaluable and very time-saving. However, it is very useful to the researcher as it now exists.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Coding in Pattern Recognition

SEARCH NO.: 1659 NO. ABSTRACTS SENT: 115 NO. DOCUMENTS ORDERED: 9

UNIVERSITY: N. C. State University DEPARTMENT: Electrical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I probably would have spent an unknown number of hours to find
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
18
3. How many of these pertinent citations had you seen before?
10
4. From what source did you secure copies of the documents you wanted?
NCSTRC
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$15

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

aerospace-related industrial R & D
non-aerospace-related industrial R & D

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Tractor Seat Isolation

SEARCH NO.: 1662 NO. ABSTRACTS SENT: 106 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: N. C. State University DEPARTMENT: Biological & Agricultural Engr.

1. The computerized information retrieval service offered by NCSTRC
provided me with valuable material I would not have found or used otherwise.
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
30
3. How many of these pertinent citations had you seen before?
10
4. From what source did you secure copies of the documents you wanted?
university library
Clearinghouse
5. How was the cost of the search met?
research project funds
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

military service

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file

10. Do you care to make any additional comments on this program?

I have not fully used this literature search yet because my major emphasis in the past year has been on course work. I shall try to remember to offer more constructive criticism to you and your service as I gain more experience with its use.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Austenite Grain Size Effect on Steel Transformation

SEARCH NO.: 1668 NO. ABSTRACTS SENT: 145 NO. DOCUMENTS ORDERED: 0

UNIVERSITY: Duke University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with completely useless information
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
none
3. How many of these pertinent citations had you seen before?
no answer
4. From what source did you secure copies of the documents you wanted?
no answer
5. How was the cost of the search met?
personal resources
6. How much do you feel most students would be willing to pay personally for
the service?
It depends on the type of service, like the one I got(?)(!!)

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

industrial research, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes, if certain changes are made like: reprocess the search if the student does not have even a single reference relating to what he asked for.

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include metallurgy

10. Do you care to make any additional comments on this program?

The title of the bibliography (No. 1668) that I got reads: "Austenite Grain Size Effect on Steel Transformation." But the list of references inside does not give even a single reference of a title with the word grain/grain size in it. The research I am doing is primarily on the effect of "Grain Size" on Austenitic Steel--and without any reference relating to grain size you can imagine the use of the bibliography to me.

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Properties of Polypropylene & Similar Fibers

SEARCH NO.: 1669 NO. ABSTRACTS SENT: 47 NO. DOCUMENTS ORDERED: 5

UNIVERSITY: Duke University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided me with additional background information relevant to my problem
which I would have spent 2 hours to find

2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
8

3. How many of these pertinent citations had you seen before?
3

4. From what source did you secure copies of the documents you wanted?
NCSTRC
university library

5. How was the cost of the search met?
research project funds

6. How much do you feel most students would be willing to pay personally for
the service?
\$5-\$10, depending on known number of items in field in the data bank

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include chemical concentrates or similar version of Chemical Abstracts, Nuclear Science Abstracts, unclassified portion of Defense Department file (listing in unclassified portion of TAB), Textile Technology Digest, and anything of value.

10. Do you care to make any additional comments on this program?

no answer

RESPONSES TO UTILITY SURVEY

SEARCH TITLE: Hot Water Diffusion into Streams

SEARCH NO.: 1685 NO. ABSTRACTS SENT: 44 NO. DOCUMENTS ORDERED: 2

UNIVERSITY: Duke University DEPARTMENT: Mechanical Engineering

1. The computerized information retrieval service offered by NCSTRC
provided only a limited number of citations of interest to me
2. In your opinion, how many of the abstracts or citations you received
were pertinent to your question?
7
3. How many of these pertinent citations had you seen before?
2
4. From what source did you secure copies of the documents you wanted?
university library
NCSTRC
5. How was the cost of the search met?
departmental resources
6. How much do you feel most students would be willing to pay personally for
the service?
\$10

RESPONSES TO UTILITY SURVEY continued

7. What type of employment do you expect to pursue upon completion of your degree program?

university teaching, primarily

8. Would you recommend to your future employer the use of information retrieval services such as this?

yes

9. What could be done to make the service more valuable to you personally?

enlarge the data file to include unclassified portion of Defense Department file (listing in unclassified portion of TAB)

10. Do you care to make any additional comments on this program?

no answer